1985 Indices

Index of SURVEYING AND MAPPING, Volume 45

This index includes all principal articles and all news items, briefs, as well as the subjects carried under each of the departments that were published in Volume 45 (1985) of SURVEYING AND MAPPING. The principal articles are indexed by title and authors; other items by title with author and with commenter or reviewer as applicable. For the convenience of persons referring to unbound numbers of the Journal, the number of the issue has been included after the volume number in order to avoid the necessity of referring to the following table. The issues published in 1985 are:

March	Pages 1-98	No. 1
June	Pages 99-186	No. 2
September	Pages 187-286	No. 3
December	Pages 287-372	No. 4

PRINCIPAL ARTICLES

ADLER, RON, A Hybrid Method of Mapping and Photogeodetic Control Network Densification, 45:1, 33

ANDERSON, BRUCE and CLARENCE POTRATZ, A Stochastic Model for Retracement Surveys, 45:1, 55

Areal Calculations Using an Acoustical Digitizer-Minicomputer System, BRUCE E. HERRING and MARGUERITE L. FREEMAN, 45:4, 319

BALOGUN, OLAYINKA V., Surveying and Mapping in Nigeria, 54:4, 347

BALOGUN, OLAYINKA V., Training of Nigerian Surveyors in the Colonial Era, The, 45:2, 159

BERRY, RALPH MOORE and HERBERT W. STOUGHTON, Simple Algorithms for Calculation of Scale Factors for Plane Coordinate Systems (1927 NAD and 1983 NAD), 45:3, 247

Choosing and Evaluating Property Line Survey Methods, HARLAN J. ONSRUD, 45:2, 139

Comparison of Planimetric and Height Accuracy of Digital Maps, Y. C. LEE, 45:4, 333

Coordinates and Azimuth Determination from an Inaccessible Baseline, WALTER H. TREFTZ, 45:1, 61

Creation of Highways in Indiana, DAVID A. WAHLSTROM, 45:2, 131

DEARINGER, JOHN A. and HARRY J. STERLING, JR., The Summer Camp—Opinions and Attitudes, 45:3, 225
DIX, WALTER S., Early History of the American Congress on Surveying and Mapping (ACSM), Part X, 45:1, 13; Part X contd., 45:2, 109; Part X contd., 45:3, 199
DOLAN, CATHERINE W., The Need for a Modern Land Data System by the Public Administrator, 45:1, 45
Early History of the American Congress on Surveying and Mapping, (ACSM), Part X, WALTER S. DIX, 45:1, 13; Part X contd., 45:2, 109; Part X contd., 45:3, 199
First Order Positioning by Three-Dimensional EDM, SIMO H. LAURILA, 45:2, 145
First Steps in Modernizing Local Land Records, HARLAN J. ONSRUD, 45:4, 305
FREEMAN, MARGUERITE L. and BRUCE E. HERRING, Areal Calculations Using an Acoustical Digitizer-Minicomputer System, 45:4, 319
HASHIMI, SAYED R., Polaris and Solar Observations Reduction for Azimuth Without the Use of Ephemeris, 45:3, 239
HERRING, BRUCE E. and MARGUERITE L. FREEMAN, Areal Calculations Using an Acoustical Digitizer-Minicomputer System, 45:4, 319
HORSFALL, CLIVE and PETER A. STEEVES, Optical Plummet Adjustment, 45:4, 343
Hybrid Method of Mapping and Photogeodetic Control Network Densification, A, RON ADLER, 45:1, 33
LAURILA, SIMO H., First Order Positioning by Three Dimensional EDM, 45:2, 145
LEE, Y. C., Comparision of Planimetric and Height Accuracy of Digital Maps, 45:4, 333
MINICH, HILLARY, Skydusky Hollow Photogrammetric Mapping Project, 45:2, 153
Need for a Modern Land Data System by the Public Administrator, The, CATHERINE W. DOLAN, 45:1, 45
Non-Iterative Solution of the Φ Equation, MOHAMMED ID OZONE, 45:2, 169
ONSRUD, HARLAN J., Choosing and Evaluating Property Line Survey Methods, 45:2, 139
ONSRUD, HARLAN J., First Steps in Modernizing Local Land Records, 45:4, 305
Optical Plummet Adjustment, PETER A. STEEVES and CLIVE HORSFALL, 45:4, 343
OZONE, MOHAMMED ID, Non-Iterative Solution of the Φ Equation, 45:2, 169
Polaris and Solar Observations Reduction for Azimuth Without the Use of Ephemeris, SAYED R. HASHIMI, 45:3, 239
POTRATZ, CLARENCE and BRUCE ANDERSON, A Stochastic Model for Retracement Surveys, 45:1, 55
Precise Determination of the Scale Factor from Lambert Conical Projection Coordinates, T. VINCENTY, 45:4, 315
Simple Algorithms for Calculation of Scale Factors for Plane Coordinate Systems (1927 NAD and 1983 NAD), HERBERT W. STOUGHTON and RALPH MOORE BERRY, 45:3, 247
Skydusky Hollow Photogrammetric Mapping Project, HILLARY MINNICH, 45:2, 153
STEEVES, PETER A. and CLIVE HORSFALL, Optical Plummet Adjustment, 45:4, 343
STERLING, HARRY J., JR., and JOHN A. DEARINGER, The Summer Camp—Opinions and Attitudes, 45:3, 225
Stochastic Model for Retracement Surveys, A, CLARENCE POTRATZ and BRUCE ANDERSON, 45:1, 55
STOUGHTON, HERBERT W. and RALPH MOORE BERRY, Simple Algorithms for Calculation of Scale Factors for Plane Coordinate Systems (1927 NAD and 1983 NAD), 45:3, 247
Summer Camp—Opinions and Attitudes, The, JOHN A. DEARINGER and HARRY J. STERLING, JR., 45:3, 225
Surveying and Mapping in Nigeria, OLAYINKA V. BALOGUN, 45:4, 347
Training of Nigerian Surveyors in the Colonial Era, The, OLAYINKA Y. BALOGUN, 45:2, 159
TREFTZ, WALTER H., Coordinates and Azimuth Determination from an Inaccessible Baseline, 45:1, 61
VINCENTY, T., Precise Determination of the Scale Factor from Lambert Conical Projection Coordinates, 45:4, 315
WAHLSTROM, DAVID A., Creation of Highways in Indiana, 45:2, 131

ACSM CORPORATE RECORD

Statement of Ownership, Management and Circulation, 45:1, 76

ACSM SUSTAINING MEMBERS

Names and addresses, 45:1, 7; 45:2, 105; 45:3, 195; 45:4, 299

COMMENT AND DISCUSSION

"Astronavigation for the Lomonosov Ridge Experiment," Re:, by Gerald Johnson [Rafael Sanchez, commenter], 45:3, 279
"Azimuth Determination by Solar Observation: New Perspectives on an Old Problem," Re:, by Paul Boucher [Prof. Raphael N. Sanchez, commenter], 45:1, 69
"Choosing and Evaluating Property Line Survey Methods," Re:, by Harlan J. Onsrud [John M. Labrum, F. Henry Sipe, commenters], 45:3, 271
"Coordinates and Azimuth Determination from an Inaccessible Baseline," by Walter H. Treftz [Corrigendum by editor. Prof. Gabor Szava-Kovats, I.

D. Wijayaratne, David L. Lindell, commenters], 45:2, 177; [S. T. Shreeve, Bert Mason, Jr., commenters], 45:3, 268
Corrigendum (Earl F. Burkholder article, December 1984), 45:1, 69
"First Order Positioning by Three-Dimensional EDM," Re:, by Simo H. Laurila [Simo H. Laurila, commenter, and corrigenda; Major Mark C. Breach, commenter], 45:3, 271
Greulich Comment on Need for a Densified Geodetic Control, Re:, [Joseph F. Dracup, commenter], 45:1, 68
"Need for a Modern Land Data System by the Public Administrator, The," Re:, by Catherine W. Dolan [Larry V. Worrell, commenter], 45:3, 279
"Non-Iterative Solution of the ϕ Equation," Re:, by Mohammed Id Ozone [T. Vincenty, commenter; M. I. Ozone, respondent; B. K. Meade, Bruce Hedquist, commenters]
?, Re:, (feature carried on trial for one year), [Andrew B. Hill, Jack M. Kesler, and William W. Mendenhall, commenters], 45:2, 177
"Simple Algorithms for Calculation of Scale Factors for Plane Coordinate Systems (1927 NAD and 1983 NAD)," Re:, by Herbert W. Stoughton and Ralph Moore Berry [B. Chovitz, Alden P. Colvocorresses, commenters], 45:4, 361
"Subdivision of a Section," Re:, by John G. McEntyre, and subsequent comments, [Curtis M. Brown, commenter], 45:1, 67; on comments by Curtis Brown re: *ibid.* [J. W. Glidden, commenter], 45:4, 362

CUMULATIVE VOLUME INDICES OF BOUND TECHNICAL PAPERS (1984)

44th Spring Convention (1984), 45:1, 87
1984 Fall Convention, 45:1, 93

INDEX OF 'SURVEYING AND MAPPING' 1984

Volume 44, 45:1, 83

LITERATURE AND MAP REVIEWS

Book Reviews
At the Sign of the Compass and Quadrant—The Life and Times of Anthony Lamb, by Silvio Bedini [Herbert W. Stoughton, reviewer], 45:1, 72
Beyond the Traverse Point—A Practical Guide for Managing a Land Surveying/Engineering Business, by T. S. Madson II and Daniel E. Beardslee [Herbert W. Stoughton, reviewer], 45:2, 182
Boundary Hunters, The: Surveying the 141st Meridian and the Alaska Panhandle, by Lewis Green [Morris M. Thompson, reviewer], 45:1, 71
Fading Footsteps (Or, Retracement and the Land Surveyor), by T. S. Madson II and Louis N. A. Seeman (Herbert W. Stoughton, reviewer], 45:1, 72
Geodesy: An Introduction, by Wolfgang Torge (translated by Christopher Jekell) [Herbert W. Stoughton, reviewer], 45:1, 74
Geodetic Refraction, Effects of Electromagnetic Wave Propagation Through the Atmosphere, Fritz K. Brunner, ed. [Herbert W. Stoughton, reviewer], 45:1, 74
Gravity, by Chuji Tsuboi [Herbert W. Stoughton, reviewer], 45:3, 281
History of Topographic Maps: Symbols, Pictures and Surveys, The, by P. D. A. Harvey[Herbert W. Stoughton, reviewer], 45:3, 280
Mapmakers, The—The Story of the Great Pioneers in Cartography from Antiquity to the Space Age, by John Noble Wilford [Herbert W. Stoughton, reviewer], 45:3, 283
Maps and Map-Makers, by Ronald Vere Tobley [Herbert W. Stoughton, reviewer], 45:3, 281
Proceedings of the International Symposium: Management of Geodetic Data [Kovenhavn, Aug. 14-26, 1981), C. C. Tscherning, ed. [Herbert W. Stoughton, reviewer], 45:2, 183
Scientist and Engineer in Court, The, by Michael D. Bradley [Herbert W. Stoughton, reviewer], 45:2, 183
Subsidence Monitoring for State of Arizona, by William E. Strange [Herbert W. Stoughton, reviewer], 45:2, 181
Ultimate Zero Sum Game (Graphic Portrayal of Winners and Losers in Real Life, Real Property Boundary Situations), by T. S. Madson II and John P. Horne [Robert D. Reckert, reviewer],45:4, 365

Recommended Reading
Three papers: Authors John Gergen; Leslie Perry; and James Lucas on the "Ada County Project" [Maurice E. Lafferty, reviewer], 45:3, 280

MISCELLANEOUS

ACSM-ASP Index to Technical Papers (advertisement), 45:2, 138
ACSM-ASP Conventions: 1985 Fall, 45:1, 54; 45:2, 152; 1986 Spring, 45:3, 246; 45:4, 331
ACSM Publications, 45:4, 246, 360
ACSM 13th Annual Map Design Competition, 45:4, 356
COFPAES 13th Annual Conference, 45:1, 70
Fellowships and Scholarships for 1986-87, 45:4, 332
Index to Advertisers, 45:1, 74; 45:2, 138; 45:3, 286; 45:4, 372
Instructions to Authors re: Preparation and Submission of Articles, 45:2, 168; 45:3, 260; 45:4, 358
Masthead, 45:1, 5; 45:2, 103; 45:3, 191; 45:4, 291
Nominations for the Earle J. Fennell Award, 45:4, 341

Permission to Photocopy, 45:1, 5; 45:2, 103; 45:3, 191; 45:4, 291
TRIG-STAR, 45:1, 75;

NEW MEMBERSHIP APPLICATIONS

Names categorized by States, 45:1, 79; 45:2, 184; 45:3, 285; 45:4, 368

QUESTION [puzzle]

Question (4), 45:1, 77; (The Important Question), 45:2, 172; ?(5) Three Dimensional Positioning by Distances, 45:3, 261; ? First Eight to Solve (5) Named, 45:4, 357

THE SURVEYOR AND THE LAW

Adjoining Boundaries as Monuments, by Andrew C. Kellie, 45:2, 175
Deed Research, by Andrew C. Kellie, 45:1, 65
Horizontal or Surface Measure? by Andrew C. Kellie, 45:4, 259
Reference to a Plat, by Andrew C. Kellie, 45:3, 263

Indices of Bound Volumes of Technical Papers from ACSM Spring and Fall Conventions, 1985

ACSM bound volumes of technical papers, given to all ACSM registrants at the conventions, include most of the papers presented, which are seldom reprinted in SURVEYING AND MAPPING or THE AMERICAN CARTOGRAPHER. These volumes are considered a *must* for the library of every professional surveyor, geodesist, or cartographer. Bound volumes are presented to registrants at the spring and fall conventions for convenience in following speakers' presentations, for background prior to presentations, and for future reference, as part of the registration fee.

BOUND TECHNICAL PAPERS OF THE ACSM 45th ANNUAL SPRING CONVENTION
Washington, D.C., March 10-15, 1985, 564 pp. plus pp. i-xv front material

A.B.E.T.—Engineering Accreditation Commission—Five Years of Experience, ROBERT J. SCHULTZ, p. 453

AALDERS, H. J. G. L., Development of LKI (Land Surveying and Cadastral Information System), p. 279

Accuracy Evaluation of Laser Levels, MUSHTAQ HUSSAIN and ROGER D. HEMMAN, p. 20

Accuracy Tests on the Use of Magnesium Tracers for Positioning, GEORGE M. COLE, p. 552

ADJUST, The Horizontal Observation Adjustment Program, WILLIAM G. KASS, p. 374

Alaska Test of the Helmert Blocking Phase of the North American Datum Project, The, ELIZABETH B. WADE and MARALYN L. VORHAUER, p. 383

Alignment for the Hubble Space Telescope, STEPHAN JALON, p. 330

Alignment of Stanford's New Electron-Positron Collider, The, HORST FRIEDSAM, WILLIAM OREN, MATTHEW PIETRYKA, RAINER PITTHAN, and ROBERT RULAND, p. 321

ANDERSON, KEVIN M., Geodetic Surveying—The Foundation for a Multipurpose Cadastre, p. 195

Application of the Aerial Profiling of Terrain System, EDWARD J. CYRAN (abstract only), p. 498

Application of the 1:2,000,000-Scale Data Base, An: A National Atlas Sectional Prototype, DONNA M. DIXON, p. 483

Application of the Variance Factor Test to a Global Positioning System Survey, DENNIS G. MILBERT, p. 502

Automated Star Sensor System to Improve Accuracies in Astronomic Position Determinations, An, EUGENE A. HOWELL, JAMES H. RAUM, ROBERT D. ROWE, RUDOLPH SALVERMOSER, and HERBERT W. STOUGHTON (abstract only), p. 15

BALDINI, ANGEL A., Basic Formulae for the Computation of the Deflection of the Vertical from Astronomical Star Observations, p. 407

BARNES, GRENVILLE, The South African Cadastre: An Overview of the Geodetic Network, Land Registration System and Surveying Profession, p. 98

Basic Formulae for the Computation of the Deflection of the Vertical from Astronomical Star Observations, ANGEL A. BALDINI, p. 407

BAUKE, WALTER, DAVID A. CLARK and PETER B. TRUJILLA, Surveying and Optical Tooling Technologies Combined to Align a Skewed Beamline at the LAMPF Accelerator, p. 311

BRASSEL, KURT E., MARTIN HAGELI and MARTIN HELLER, Graduated Choropleth Mapping, p. 348

BRINKER, DEXTER M., Descriptive Geometry of the Celestrial Sphere, p. 558

BURTON, MARY A. and ALAN W. ROTH, Integrating Surveying and Computer Aided Design Technologies, p. 558

BUTTS, GEORGE F., Professional Practice—Standards, p. 181

BUTTS, GEORGE F. and DONALD A. WILSON, Professional Practice—Introduction, p. 169

CAGLE, PATRICIA M., Underground Surveying at Cominco American's Magmont Mine, p. 249

Can Shelton's Topographic Maps Be Replicated?, THOMAS KENT HINCKLEY, p. 492

CARPENTER, ROBERT L., Land Surveyor Registration—A Review of State Statutes and Rules, p. 176

CARTER, JAMES R., Curricula Standards, Certification and Other Possibilities in Cartographic Education, p. 2

Cartographic Education Outside the University: Some Organizations and Interest Groups in California, EUGENE J. TURNER, p. 8

Cartography at Sir Sandford Fleming College, CHRISTOPHER YU (title only)

Changing Education Requirement of Cartographic

Employers, The, LAWRENCE STIPEK (title only)
CHAPPELL, PETER, Utilization of GPS in Current Geodetic Surveys: A Case History (title only)
CHIN, MIRANDA and TOMAS SOLER, On Transformation of Covariance Matrices Between Local Cartesian Coordinate Systems and Commutative Diagrams, p. 393
CHOVITZ, BERNARD H., Standards and Specifications for Geodetic Control Networks, p. 28
CHRISMAN, NICHOLAS R., D. DAVID MOYER ALAN P. VONDEROHE, DAVID F. MEZERA, JEROME G. SULLIVAN, and BERNARD J. NIEMANN, JR., Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, p. 116
CLAPP, JAMES L. and BERNARD J. NIEMANN, Megatrends: A Format for Evaluating the Social Relevance of the Multipurpose Cadastre in North America, p. 90
CLARK, DAVID A., PETER B. TRUJILLO and WALTER BAUKE, Surveying and Optical Tooling Technologies Combined to Align a Skewed Beamline at the LAMPF Accelerator, p. 311
COLE, GEORGE M., Accuracy Tests on the Use of Magnesium Tracers for Positioning, p. 552
COLING, JEROME F., Low Cost Coastal Map Representation for the Florida Beach Management Plan, p. 155
COLLINS, JAMES, GPS Azimuths and Elevations (abstract only), p. 500
COLLINS, JAMES and ALFRED LEICK, Montgomery County (PA) GPS Survey, p. 512
Comparative Analysis of the Trends in Content Characteristics of State Atlas Development, A., RICHARD A. SAMBROOK, p. 66
CONMAP-USGS Marine Mapping Program, ESCOWITZ, EDWARD C., p. 144
COOPER, JOHN R., JR., ERIC L. RUDOLPH and MAJOR C. R. MCCULLOUGH, TVA's Automated Buoy Range Reference Charting, p. 151
County-Wide Public Land Survey Corner Positioning Cost Comparison, JAMES K. CROSSFIELD, p. 203
COWEN, DAVE, PATRICIA GILMARTIN, JOHN JENSEN, BOB LLOYD and TED STEINKE, The Geographic Information Processing Program at the University of South Carolina: Implementation Realities (title only)
CROSSFIELD, JAMES K., County-Wide Public Land Survey Corner Positioning Cost Comparison, p. 203
CROSSFIELD, JAMES K., A Horizontal Surveying Traverse Cost Model, p. 529
Curricula Standards, Certification, and Other Possibilities in Cartographic Education, JAMES R. CARTER, p. 529
CYRAN, EDWARD J., Application of the Aerial Profiling of Terrain System (abstract only), p. 498
DANGERMOND, JACK, WILLIAM DERRENBACHER and ERIC HARNDEN, World Map of Desertification Hazards: Data Base Development and Application, United Nations Environment Programme, 1983-1984, p. 288
Data Entry and Processing Methods for Building a Geodetically Controlled Cadastral Map Data Base, RUSSELL E. OBERG, p. 213
Data Structure for Interactive Attribute Assignment in Geographical Information Systems, A, WOLFGANG KAINZ, p. 264
DERRENBACHER, WILLIAM, ERIC HARNDEN and JACK DANGERMOND, World Map of Desertification Hazards: Data Base Development and Application, United Nations Environment Programme, 1983-1984, p. 288
Descriptive Geometry of the Celestial Sphere, DEXTER M. BRINKER, p. 539
Development of LKI (Land Surveying and Cadastral Information System), H. J. G. L. AALDERS, p. 279
DEWHURST, WARREN T., National Ocean Service Exclusive Economic Zone Geophysical Observation Program (abstract only), p. 134
DIXON, DONNA M., An Application of the 1:2,000,000-Scale Data Base: A National Atlas Sectional Prototype, p. 483
DRINNAN, CHARLES H., Mapping Information Management System Requirements for Master Plan Applications, p. 298
EASTMAN, J. RONALD, Names Placement and Positional Recall of Map Information, p. 474
EEZ-SCAN: A U.S. Geological Survey Sea-Floor Imaging Program Using the GLORIA Side-Scan Sonar System, GARY W. HILL, p. 135
EHRIG, HERBERT D., Which Straight Line Do I Use?, p. 426
"Electronic Atlas"—Spatial Data Bases for the General Public, ROBERT PUTERSKI, p. 256
Electronic Field Books: Design, Software, Application, ALAN R. TOWNSEND, p. 49
ESCOWITZ, EDWARD C., CONMAP-USGS Marine Mapping Program, p. 144
FRIEDSAM, HORST, WILLIAM OREN, MATTHEW PIETRYKA, RAINER PITTHAN, and ROBERT RULAND, The Alignment of Stanford's New Electron-Positron Collider, p. 321
FURY, RUDOLF J., LARRY D. HOTHEM and DAVID B. ZILKOSKI, Orthometric Height Determination with GPS Satellite Surveys (abstract only), p. 528
General Overview of the Requirements for Licensure from the Administrative Point of View, MONTGOMERY T. SPIER (title only)
Geodetic Control—A Prerequisite for Computer

Mapping for the City of Chicago, CHARLES J. O'CONNOR (title only
Geodetic Surveying—The Foundation for a Multipurpose Cadastre, KEVIN M. ANDERSON, p. 195
Geographic Information Processing Program at the University of South Carolina, The: Implementation Realities, DAVE COWEN, PATRICIA GILMARTIN, JOHN JENSEN, BOB LLOYD, and TED STEINKE (title only)
GILMARTIN, PATRICIA, JOHN JENSEN, BOB LLOYD, TED STEINKE, and DAVE COWEN, The Geographic Information Processing Program at the University of South Carolina: Implementation Realities (title only)
GPS Azimuths and Elevations, JAMES COLLINS, (abstract only), p. 500
Graduated Choropleth Mapping, KURT E. BRASSEL, MARTIN HAGELI, and MARTIN HELLER, p. 348
GRANGER, JAMES H., Professional Practice—Ethics (title only)
HAGELI, MARTIN, MARTIN HELLER, and KURT E. BRASSEL, Graduated Choropleth Mapping, p. 348
HAMMARSTROM, CARL, Magnetic Surveys and Retracements, p. 433
HARNDEN, ERIC, JACK DANGERMOND and WILLIAM DERRENBACHER, World Map of Desertification Hazards: Data Base Development and Application, United Nations Environment Programme, 1983-1984, p. 286
HART, E. FRANKLIN, International Society for Mine Surveying Facts, p. 233
HARVEY, R. BRADFORD, The Use of Orthophotography and GIS Technology to Conduct a Storm Drainage Utility Impervious Surface Analysis: A Case Study, p. 271
HELLER, MARTIN, KURT BRASSEL and MARTIN HELLER, Graduated Choropleth Mapping, p. 348
HEMMAN, ROGER D. and MUSHTAQ HUSSAIN, Accuracy Evaluation of Laser Levels, p. 20
HILL, GARY W., EEZ-SCAN: A U.S. Geological Survey Sea-Floor Imaging Program Using the GLORIA Side-Scan Sonar Systen, p. 135
HINCKLEY, THOMAS KENT, Can Shelton's Topographic Maps be Replicated?, p. 492
Historical Background to the Location and Patenting of Mining Claims on the Public Domain, A, JOHN STOCK (abstract only), p. 248
History of Ownership of Minerals in the United Kingdom, JOHN C. R. WEEKS, p. 238
Horizontal Surveying Traverse Cost Model, A, JAMES K. CROSSFIELD, p. 529
HOTHEM, LARRY D., DAVID B. ZILKOSKI, and RUDOLF J. FURY, Orthometric Height Determination with GPS Satellite Surveys (abstract only), p. 528
HOWELL, EUGENE A., JAMES H. RAUM, ROBERT D. ROWE, RUDOLPH SALVERMOSER, and HERBERT W. STOUGHTON, An Automated Star Sensor System to Improve Accuracies in Astronomic Position Determinations (abstract only), p. 15
HUSSAIN, MUSHTAQ and ROGER D. HEMMAN, Accuracy Evaluation of Laser Levels, p. 20
Hydrostactic Leveling, L. A. KIVIOJA, p. 16
Impacts of the 1977 Surface Mining Act, CARL S. VENDER, p. 220
Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, JEROME G. SULLIVAN, BERNARD J. NIEMANN, JR., NICHOLAS R. CHRISMAN, D. DAVID MOYER, ALAN P. VONDEROHE, and DAVID F. MEZERA, p. 116
Integrating Surveying and Computer Aided Design Technologies, ALAN W. ROTH and MARY A. BURTON, p. 558
International Society for Mine Surveying Facts, E. FRANKLIN HART, p. 233
Iowa State Perspective on Education and Licensing, K. JEYAPALAN, p. 450
Issues Surrounding the Creation of University Centers of Cartographic Education and Research, PHILLIP MUEHRCKE, p. 1
JALON, STEPHAN, Alignment for the Hubble Space Telescope, p. 330
JENSEN, JOHN, BOB LLOYD, TED STEINKE, DAVE COWEN, and PATRICIA GILMARTIN, The Geographic Information Processing Program at the University of South Carolina: The Implementation Realities (title only)
JEYAPALAN, K., Iowa State Perspective on Education and Licensing, p. 450
JOHNSON, PHILLIP C. and RICHARD J. MITCHELL, Toward a Complete Common Land Information System—A Full Multipurpose Cadastre, p. 106
JONES, WILLIAM J. and PAUL E. NEEDHAM, North American Datum 1983 Implementation Impacts on the USGS National Mapping Program (abstract only), p. 77
KAINZ, WOLFGANG, A Data Structure for Interactive Attribute Assignment in Geographical Information Systems, p. 264
KASS, WILLIAM G., ADJUST, The Horizontal Observation Adjustment Program, p. 374
KAULA, WILLIAM M., GILBERT J. MITCHELL, and MICHAEL J. KEVANY, NOAA's Role in the Multipurpose Cadastre—The Survey Information Network (SIN), p. 126
KIMERLING, A. JON, Simultaneous Contrast and the Unclassed Choropleth Map (abstract only), p. 355
KIVIOJA, L. A., Hydrostatic Leveling, p. 16

KOPACH, STEPHEN G., Red River's Gradient Boundary, p. 442
KRIKSCIUN, JOHN A., Mapping the Metropolitan District, p. 61
LAM, NINA SIU-NGAN, A Method for Choropleth Inversion, p. 365
LAMBERT, ROBIN B., Realizing the Full Potential of the Video Disc for Mapping Applications, p. 83
Land Surveyor Registration—A Review of State Statutes and Rules, ROBERT L. CARPENTER, p. 176
LANGRAN, GAIL, Map Design for Digital Production Efficiency, p. 467
Legend of the Choropleth Map: Considerations for a Potentially More Informative Design, The, GRADY B. MEEHAN, p. 364
LEICK, ALFED and JAMES COLLINS, Montgomery County (PA) GPS Survey, p. 512
LEICK, ALFRED and ROBERT RULAND, Usability of GPS in Engineering Surveys (abstract only), p. 501
LEIGH, GEORGE E. and W. S. SIMMONS, Hydrographic Surveys of the Apostle Islands, Wisconsin, p. 160
LLOYD, BOB, TED STEINKE, DAVE COWEN, PATRICIA GILMARTIN, and JOHN JENSEN, The Geographic Information Processing Program at the University of South Carolina: Implementation Realities (title only)
LOON, JOE, Mapping Sciences in the Department of Geodetic Science and Surveying at the Ohio State University (title only)
Low Cost Coastal Map Representations for the Florida Beach Management Plan, JEROME F. COLING, p. 155
Magnetic Surveys and Retracements, CARL HAMMARSTROM, p. 433
Map Accuracy Evaluations, MARK REICHARDT (title only)
Map Design for Digital Production Efficiency, GAIL LANGRAN, p. 467
Mapping Information Management System Requirements for Master Plan Applications, CHARLES H. DRINNAN, p. 298
Mapping Sciences in the Department of Geodetic Science and Surveying at the Ohio State University, JOE LOON, (title only)
Mapping the Metropolitan District, JOHN A. KRIKSCIUN, p. 61
MC CULLOUGH, MAJOR C. R., JOHN R. COOPER, JR., and ERIC L. RUDOLPH, TVA's Automated Buoy Range Reference Charting, p. 151
MC GRANAGHAN, MATTHEW, Symbol and Background Value Effects in Choropleth Maps for Color CRT Display, p. 356
MC KELVEY, GERALD R., Wild T-2000 GRE3 Computation Drafting: A Complete Field to Finish System for All Types of Surveys, p. 42
MEEHAN, GRADY B., The Legend of the Choropleth Map: Considerations for a Potentially More Informative Design (abstract only), p. 364
Megatrends: A Format for Evaluating the Social Relevance of the Multipurpose Cadastre in North America, BERNARD J. NIEMANN, JR., and JAMES L. CLAPP, p. 90
Method for Choropleth Inversion, A, NINA SIU-NGAN LAM, p. 365
MEZERA, DAVID F., JEROME G. SULLIVAN, BERNARD J. NIEMANN, JR., NICHOLAS R. CHRISMAN, D. DAVID MOYER, and ALAN P. VONDEROHE, Institutional Reform Before Automation: The Foundation for Modernizing Land Records System—A Case Study, p. 116
MILBERT, DENNIS G., Application of the Variance Factor Test to a Global Positioning System Survey, p. 502
MITCHELL, GILBERT J., MICHAEL J. KEVANY, and WILLIAM M. KAULA, NOAA's Role in the Multipurpose Cadastre—The Survey Information Network (SIN), p. 126
MITCHELL, RICHARD J. and PHILLIP C. JOHNSON, Toward a Complete Common Land Information System—A Full Multipurpose Cadastre, p. 106
MONTAG, RICHARD E., Prism Pole Plumbing with the Measured Centering Tripod, p. 56
Montgomery County (PA) GPS Survey, JAMES COLLINS and ALFRED LEICK, p. 512
MOYER, D. DAVID, ALAN P. VONDEROHE, DAVID F. MEZERA, JEROME G. SULLIVAN, BERNARD J. NIEMANN, JR., and NICHOLAS R. CHRISMAN, Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, p. 116
MUEHRCKE, PHILLIP, Issues Surrounding the Creation of University Centers of Cartographic Education and Research (abstract only), p. 1
Names Placement and Positional Recall of Map Information, RONALD J. EASTMAN, p. 474
National Geodetic Survey's EDMI Calibration Base Line Program, The, RICHARD A. YORCZYK, p. 32
National Ocean Service Exclusive Economic Zone Geophysical Observation Program, WARREN T. DEWHURST, p. 134
NCEE Involvement in the Licensing Procedure for Land Surveyors, HARRY J. PARKER (title only)
NEEDHAM, PAUL E. and WILLIAM J. JONES, North American Datum 1983 Implementation Impacts on the USGS National Mapping Program (abstract only), p. 77
NIEMANN, BERNARD J., JR., NICHOLAS R. CHRISMAN, D. DAVID MOYER, ALAN P. VONDEROHE, DAVID F. MEZERA, and JE-

ROME G. SULLIVAN, Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, p. 116
NIEMANN, BERNARD J., JR., and JAMES L. CLAPP, Megatrends: A format for Evaluating the Social Relevance of the Multipurpose Cadastre in North America, p. 90
NOAA's Role in the Multipurpose Cadastre—The Survey Information Network (SIN), WILLIAM M. KAULA, GILBERT J. MITCHELL, and MICHAEL J. KEVANY, p. 126
North American Datum 1983 Implementation Impacts on the USGS National Mapping Program, WILLIAM J. JONES and PAUL E. NEEDHAM (abstract only), p. 77
NOS Exclusive Economic Zone Bathymetric Surveys, DONALD E. PRYOR (abstract only), p. 133
OBERG, RUSSELL E., Data Entry and Processing Methods for Building a Geodetically Controlled Cadastral Map Data Base, p. 213
O'CONNOR, CHARLES J., Geodetic Control—A Prerequisite for Computer Mapping for the City of Chicago (title only)
On Transformation of Covariance Matrices Between Local Cartesian Coordinate Systems and Commutative Diagrams, TOMAS SOLER and MIRANDA CHIN, p. 393
Optical Storage Technology for Mapping, EDWARD A. WILKINSON, p. 28
OREN, WILLIAM and ROBERT RULAND, Survey Computation Problems Associated with Multi-Planar Electron-Positron Colliders, p. 321
OREN, WILLIAM, MATTHEW PIETRYKA, RAINER PITTHAN, ROBERT RULAND, and HORST FRIEDSAM, The Alignment of Stanford's New Electron-Positron Collider, p. 321
Orthometric Height Determination with GPS Satellite Surveys, LARRY D. HOTHEM, DAVID B. ZILKOSKI, and RUDOLF J. FURY (abstract only), p. 528
PAIVA, JOSEPH V. R., Spirals: Ironing Out the Wrinkles, p. 418
PARKER, J. HARRY, NCEE Involvement in the Licensing Procedure for Land Surveyors (title only)
PARRISH, JOHN S., Patented Mineral Surveys: "Challenges and Choices," p. 225
Patented Mineral Surveys: "Challenges and Choices," JOHN S. PARRISH, p. 225
PIETRYKA, MATTHEW, RAINER PITTHAN, ROBERT RULAND, and HORST FRIEDSAM, The Alignment of Stanford's New Electron-Positron Collider, p. 321
PITTHAN, RAINER, ROBERT RULAND, HORST FRIEDSAM, and MATTHEW PIETRYKA, The Alignment of Stanford's New Electron-Positron Collider, p. 321
Prism Pole Plumbing with the Measured Centering Tripod, RICHARD E. MONTAG, p. 56
Professional Cartographic Response to Federal Standards for the Cartographer, STEVEN J. VOGEL (title only)
Professional Practice—Introduction, GEORGE F. BUTTS and DONALD A. WILSON, p. 169
Professional Practice—Standards, GEORGE F. BUTTS, p. 181
PRYOR, DONALD K., NOS Exclusive Economic Zone Bathymetric Surveys (abstract only), p. 133
Public View of the Responsibilities of the Licensee, The, ROBERT F. STEWART, JR. (title only)
PUTERSKI, ROBERT, "Electronic Atlas"—Spatial Data Bases for the General Public, p. 256
RAUM, JAMES R., ROBERT D. ROWE, RUDOLPH SALVERMOSER, HERBERT W. STOUGHTON, and EUGENE A. HOWELL, An Automated Star Sensor System to Improve Accuracies in Astronomic Position Determinations (abstract only), p. 15
Realizing the Full Potential of the Video Disc for Mapping Applications, ROBIN B. LAMBERT, p. 83
Recent Violations of Law, Standards or Ethics, DONALD A. WILSON, p. 191
Red River's Gradient Boundary, STEPHEN G. KOPACH, p. 442
REICHARDT, MARK, Map Accuracy Evaluations (title only)
Responsibilities and Activities of the NCEE President, SAM H. WAINWRIGHT (title only)
ROTH, ALAN W. and MARY A. BURTON, Integrating Surveying and Computer Aided Design Technologies, p. 558
ROWE, ROBERT D., RUDOLPH SALVERMOSER, HERBERT W. STOUGHTON, EUGENE A. HOWELL, and JAMES RAUM, An Automated Star Sensor System to Improve Accuracies in Astronomic Position Determinations (abstract only), p. 15
RUDOLPH, ERIC L., MAJOR C. R. MCCULLOUGH, and JOHN R. COOPER, JR., TVA's Automated Buoy Range Reference Charting, p. 151
RULAND, ROBERT and ALFRED LEICK, Usability of GPS in Engineering Surveys (abstract only), p. 501
RULAND, ROBERT and WILLIAM OREN, Survey Computation Problems Associated with Multi-Planar Electron-Positron Colliders, p. 338
RULAND, ROBERT, HORST FRIEDSAM, WILLIAM OREN, MATTHEW PIETRYKA, and RAINER PITTHAN, The Alignment of Stanford's New Electron-Positron Collider, p. 321
SALVERMOSER, RUDOLPH, HERBERT W. STOUGHTON, EUGENE A. HOWELL, JAMES H. RAUM, and ROBERT D. ROWE, An Auto-

mated Star Sensor System to Improve Accuracies in Astronomic Position Determinations (abstract only), p. 15
SAMBROOK, RICHARD A., A Comparative Analysis of the Trends in Content Characteristics of State Atlas Development, p. 66
SAVLAN, JACK A., Solar Hour Angle: A Consistent Solution for Astronomical Bearing, p. 546
SCHULTZ, ROBERT J., A.B.E.T.—Engineering Accreditation Commission—Five Years of Experience, p. 458
SIMMONS, W. S. and GEORGE E. LEIGH, Hydrographic Surveys of the Apostle Islands, Wisconsin, p. 160
Simultaneous Contrast and the Unclassed Choropleth Map, A. JON KIMERLING (abstract only), p. 355
Solar Hour Angle: A Consistent Solution for Astronomical Bearing, JACK A. SAVLAN, p. 546
SOLER, TOMAS and MIRANDA CHIN, On Transformation of Covariance Matrices Between Local Cartesian Coordinate Systems and Commutative Diagrams, p. 393
South African Cadastre, The: An Overview of the Geodetic Network, Land Registration System and Surveying Profession, GRANVILLE BARNES, p. 98
SPIER, MONTGOMERY T., General Overview of the Requirements for Licensure from the Administrative Point of View (title only)
Spirals: Ironing Out the Wrinkles, JOSEPH V. R. PAIVA, p. 418
Standards and Specifications for Geodetic Control Networks, BERNARD H. CHOVITZ, p. 28
STEINKE, TED, DAVE COWEN, PATRICIA GILMARTIN, JOHN JENSEN, and BOB LLOYD, The Geographic Information Processing Program at the University of South Carolina: Implementation Realities (title only)
STEWART, ROBERT F., JR., The Public View of the Responsibilities of the Licensee (title only)
STIPEK, LAWRENCE, The Changing Educational Requirement of Cartographic Employers (title only)
STOCK, JOHN R., A Historical Background to the Location and Patenting of Mining Claims on the Public Domain (abstract only), p. 248
STOUGHTON, HERBERT W., EUGENE A. HOWELL, JAMES H. RAUM, ROBERT D. ROWE, and RUDOLPH SALVERMOSER, An Automated Star Sensor System to Improve Accuracies in Astronomic Position Determinations (abstract only), p. 15
SULLIVAN, JEROME G., BERNARD J. NIEMANN, JR., NICHOLAS R. CHRISMAN, D. DAVID MOYER, ALAN P. VONDEROHE, and DAVID F. MEZERA, Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, p. 116
Survey Computation Problems Associated with Multi-Planar Electron-Positron Colliders, WILLIAM OREN and ROBERT RULAND, p. 338
Surveying and Optical Tooling Technologies Combined to Align a Skewed Beamline at the LAMPF Accelerator, WALTER BAUKE, DAVID A. CLARK, and PETER B. TRUJILLO, p. 311
Surveyors Role in a Geographic Information System, LA MONTE URBAN (title only)
Symbol and Background Value Effects in Choropleth Maps for Color CRT Display, MATTHEW MC GRANAGHAN, p. 356
Toward a Complete Common Land Information System—A Full Multipurpose Cadastre, RICHARD J. MITCHELL and PHILLIP C. JOHNSON, p. 106
TOWNSEND, ALAN R., Electronic Field Books: Design, Software, Application, p. 49
TRUJILLO, PETER B., WALTER BAUKE, and DAVID A. CLARK, Surveying and Optical Tooling Technologies Combined to Align a Skewed Beamline at the LAMPF Accelerator, p. 311
TURNER, EUGENE J., Cartographic Education Outside the University: Some Organizations and Interest Groups in California, p. 8
TVA's Automated Buoy Range Reference Charting, ERIC L. RUDOLPH, MAJOR, C. R. MC CULLOUGH, and JOHN R. COOPER, JR., p. 151
Underground Surveying at Cominco American's Magmont Mine, PATRICIA M. CAGLE, p. 249
URBAN, LA MONTE, The Surveyors Role in a Geographic Information System (title only)
Usability of GPS in Engineering Surveys, ROBBERT RULAND and ALFRED LEICK (abstract only), p. 501
Use of Orthophotography and GIS Technology to Conduct a Storm Drainage Utility Impervious Surface Analysis, The: A Case Study, R. BRADFORD HARVEY, p. 271
Utilization of GPS in Current Geodetic Surveys: PETER CHAPPELL (title only)
VENDER, CARL S., Impacts of the 1977 Surface Act, p. 220
VOGEL, STEVEN J., Professional Cartographic Response to Federal Standards for the Cartographer (title only)
VONDEROHE, ALAN P., DAVID F. MEZERA, JEROME G. SULLIVAN, BERNARD J. NIEMANN, JR., NICHOLAS R. CHRISMAN, and D. DAVID MOYER, Institutional Reform Before Automation: The Foundation for Modernizing Land Records Systems—A Case Study of Dane County, WI, p. 116
VORHAUER, MARALYN L. and ELIZABETH B.

WADE, The Alaska Test of the Helmert Blocking Phase of the North American Datum Project, p. 383
WADE, ELIZABETH B., and MARALYN L. VORHAUER, The Alaska Test of the Helmert Blocking Phase of the North American Datum Project, p. 383
WAINWRIGHT, SAM H., Responsibilities and Activities of the NCEE President (title only)
WEEKS, JOHN C. R., History of Ownership of Minerals in the United Kingdom, p. 238
Which Straight Line Do I Use?, HERBERT D. EHRIG, p. 426
Wild T-2000 GRE3 Computation Drafting: A Complete Field to Finish System for All Types of Surveys, GERALD R. MC KELVEY, p. 42
WILKINSON, EDWARD A., Optical Storage Technology for Mapping, p. 78
WILSON, DONALD A., Recent Violations of Law, Standards or Ethics, p. 191
WILSON, DONALD A. and GEORGE F. BUTTS, Professional Practice—Introduction, p. 169
World Map of Desertification Hazards: Data Base Development and Application, United Nations Environment Programs, 1983-1984, JACK DANGERMOND, WILLIAM DERRENBACHER, and ERIC HARNDEN, p. 288
YORCZYK, RICHARD A., The National Geodetic Survey's EDMI Calibration Base Line Program, p. 32
YU, CHRISTOPHER, Cartography at Sir Sandford Fleming College (title only)
ZILKOSKI, DAVID B., RUDOLF J. FURY, and LARRY D. HOTHEM, Orthometric Height Determination with GPS Satellite Surveys (abstract only), p. 528

BOUND TECHNICAL PAPERS OF THE 1985 ACSM FALL CONVENTION
Indianapolis, Indiana, September 8-14, 1985, 996 pp. plus pp. i-xxix front material

Accuracy of Elevations from Junction Point Adjustments, WILLIAM H. SPRINSKY, p. 143
AHERN, F. J., M. BERNIER, K. P. B. THOMSON, and J. CIHLER, Thematic Mapper Evaluation for Agriculture and Forestry in Canada: Initial Results, p. 902
AHERN, FRANCIS J., PAUL F. DUFF, ANTHONY J. FITZGERALD, and JENNIFER M. MURPHY, Assessment of Radiometric Accuracy of Landsat-4 and -5 Thematic Mapper Data Products from Canadian Production Systems (abstract only), p. 862
Airborne Star Ice/Iceberg Operational Support—An Industrial Application of Remote Sensing, V. L. SHAW and R. D. WORSFELD, p. 547
AKERIB, AVIDAN J., Special Purpose Interactive Real Time Digital Image Processing System (abstract only), p. 595
ALFORD, WILLIAM L., JAMES C. TILTON and BRIAN L. MARKHAM, Landsat-4 and Landsat-5 MSS Coherent Noise: Characterization and Removal, p. 860
Analysis & Correction of Landsat 4 & 5 Thematic Mapper Sensor Data, RALPH BERNSTEIN and WILLIAM A. HANSON, p. 960
Analysis of Landsat Thematic Mapper P-Product Internal Geometry and Conformity to Earth Surface Geometry, An, N. A. BRYANT, A. L. ZOBRIST, R. E. WALKER, and B. GOKHMAN (abstract only), p. 864
Analysis of Short-Term Global Positioning System Observations, MELVYN C. GRUNTHAL and STEVEN N. BELL, p. 980
ANDERSON, PAUL S., Millimetric Coordinates (MMC) for Image Locations: Methods, Applications and Advantages, p. 486
ANDRE, CONSTANCE G., RICHARD F. MARCELL, and HERBERT W. BLODGET, Enhanced Rock Discrimination Using Landsat-S Thematic Mapper (TM) Data, p. 912
ANUTA, PAUL E., CLARE D. MC GILLEM, ERICK MALARET, LUIS A. BARTOLUCCI, and D. FABIAN LOZANO, Landsat-4/5 Thematic Mapper Data Quality Analysis (abstract only), p. 868
Applications of Landsat MSS Imagery with Very Low Sun-Angles, JOHN M. MILLER and GRETA J. BURGER, p. 832
ARCHWAMETY, D., R. C. WRIGLEY, and R. A. SCHOWENGERDT, Landsat Thematic Mapper Image-Derived MTF (abstract only), p. 871
Assessment of Conversion and Loss of Mangroves Using Remote Sensing Imagery on Marco Island, Florida, An, SAMUEL G. PATTERSON and JOHN B. REHDER, p. 728
Assessment of Radiometric Accuracy of Landsat-4 and -5 Thematic Mapper Data Products from Canadian Production Systems, JENNIFER M. MURPHY, FRANCIS J. AHERN, PAUL F. DUFF, and ANTHONY J. FITZGERALD (abstract only), p. 862
ATKINSON, PAULA, Preliminary Results of the Effect of Resampling on Thematic Mapper Imagery, p. 929
ATKINSON, PAULA and JANIS L. CUSHNIE, The Effect of Spatial Filtering on Scene Noise

and Boundary Detail in Thematic Mapper Imagery (abstract only), p. 854
BASCHI, ANIL K., Spatial Variation of Degree—Day Factor (abstract only), p. 842
BAILEY, ROBERT L., WILLIAM A. SHAIN, and LAWRENCE R. GERING, Estimation of Area Using Optimum Dot-Grid Density with Aerial Photographs, p. 811
Band Combination Selection for Visual Interpretation of Thematic Mapper Data for Resource Management, PAUL M. SEEVERS, DAVID C. JOHNSTON, and JAY W. FEUQUAY, p. 279
BARKER, JOHN L. and BRIAN L. MARKHAM Landsat MSS Absolute Radiometric Calibration (abstract only), p. 853
BARNARD, J. C., G. M. PETRIE, H. P. FOOTE, and G. E. WUKELIC, Opportunities and Difficulties Associated with Using Landsat Thematic Mapper Data for Determining Surface Water Temperatures, p. 879
BARR, DAVID J. and C. DALE ELIFRITS, A Comprehensive Remote Sensing Course Offering, p. 949
BARR, DAVID J., DASHUM ZHANG, and ROBIN R. P. DEISTER, Geological Analysis of Landsat MSS Data in Wumin-Daminshan Area Guangxi Autonomous Region, China, p. 506
BARTOLUCCI, LUIS A., D. FABIAN LOZANO, PAUL E. ANURA, CLARE D. MC GILLEM, and ERICK MALARET, Landsat-4/5 Thematic Mapper Data Quality Analysis (abstract only), p. 868
BAUMGARTEN, DIANE M., A Comparison of Linears and Curvilinears Mapped from Digitally Processed Landsat Thematic Mapper Data to Faults Depicted on Geologic Maps, p. 526
BEAUBIER, JEFF, RONALD D. EXLER, DAVID D. SELDEN, AYAH JOHNSON, and DOUGLAS MARDER, Mapping Cancer Mortality Rates with Computer Graphics, p. 45
BEERING, STEVEN C., Keynote Address, p. 1
BUCKNER, R. B., Beginning of the Public Land Surveys in Ohio: 1785-1796, The (abstract only), p. 975
BEGNI, GERALD, BENOIR BOISSIN, JACQUELINE PERBOS, and JACKY DESACHY, Investigation to Landsat-4 Thematic Mapper Line-to-Line and Band-to-Band Registration and Relative Detector Calibration (abstract only), p. 861
BELL, STEVEN N. and MELVYN C. GRUNTHAL, Analysis of Short-Term Global Positioning System Observations, p. 980
Benefits of a Bachelor of Science in Surveying: A Student's Viewpoint, The, CARL CHADWELL, GARY MOHNACSKY, and KEVIN STACY, p. 351
BENSON, ANDREW S. and STEPHEN D. DEGLORIA, Evaluation of the Geometric Quality of Thematic Mapper Photographic Data (abstract only), p. 876
BENSON, ANDREW S. and STEPHEN D. DEGLORIA, Interpretation of Landsat-4 Thematic Mapper and Multispectral Scanner Data for Forest Surveys (abstract only), p. 855
BENSON, JANE, THOMAS C. KIND, and LYNN SHELBY, The Integration of Remotely Sensed Digital Data into a Computerized Petroleum Exploration Model: The Illinois Basin, p. 557
BERNIER, M., K. P. B. THOMSON, and J. CIHLAR, Thematic Mapper Evaluation for Agriculture and Forestry in Canada: Initial Results, p. 902
BERNSTEIN, RALPH and WILLIAM A. HANSON, Analysis & Correction of Landsat 4 & 5 Thematic Mapper Sensor Data, p. 950
BLAIS, J. A. R., M. A. CHAPMAN, and A. L. KOK, Digital Terrain Modelling and Applications, p. 646
BLODGET, HERBERT W., CONSTANCE G. ANDRE, and RICHARD F. MARCELL, Enhanced Rock Discrimination Using Landsat-5 Thematic Mapper (TM) Data, p. 912
BODECHTEL, J., VINCENT V. SALOMONSON, and WAYNE HALLADA, Preliminary Comparisons in the Performance of the Landsat Thematic Mapper and the Modular Optoelectronic Multispectral Scanner (MOMS), (Summary), p. 877
BOISSIN, BENOIT, JACQUELINE PERBOS, JACKY DESACHY, and GERALD BEGNI, Investigation of Landsat-4 Thematic Mapper Line-to-Line and Band-to-Band Registration and Relative Detector Calibration (abstract only), p. 861
BOUMAN, LANE J., Contract Surveyors, p. 413
BREWER, JOHN C., Two Hundred Years of Instruments (title only), p. 978
BROOKS, JOAN, Thematic Mapper Image Processing System: Geometric Correction Performance for Landsat-5, p. 925
BRUNNER, THOMAS A. and PAUL D. MC DERMOTT, Forensic Cartography, p. 26
BRYANT, N. A., A. L. ZOBRIST, R. E. WALKER, and B. GOKHMAN, An Analysis of Landsat Thematic Mapper P-Product Internal Geometry and conformity to Earth Surface Geometry (abstract only), p. 864
BUCKLER, BILLY D., Surveying Michigan's Meridian and Base Lines, p. 393
BUCKNER, R. B., The Beginning of the Public Land Surveys in Ohio: 1785-1796 (abstract only), p. 975
Building an Iterative Land Information System, ROBERT BURTCH, p. 256
BUIS, J. S., R. C. WRIGLEY, C. A. HLAVKA, and D. H. CARD, Evaluation of Thematic Mapper

Inter-Band Registration and Noise Characterstics (abstract only), p. 856
BURFORD, ROBERT F., The Significance of the Public Land Surveys (title only), p. 976
BURGER, GRETA J. and JOHN M. MILLER, Applications of Landsat MSS Imagery with Very Low Sun-Angles, p. 832
BURTCH, ROBERT, Building an Iterative Land Information System, p. 256
BURTCH, ROBERT, Problems in Surveying and Mapping Education: The Ferris State College Alternative, p. 321
BYERS, R., L. MARJANA, P.M. TEILLET, D. C. GOODENOUGH, and G. FEDOSEJEVA, Radiometric Limitations to Thematic Mapper Image Information Content, p. 892
Cadastral Surveys on the Colonial Frontier: Reflections on the Experiences of Aaron Greeley on Mackinac Island, Michigan, RICHARD ALAN SAMBROOK, p. 403
CAMP, DONALD M. and RANDALL W. NAGEL, Superpositioning of Digital Elevation Data with Analog Imagery for Data Editing, p. 596
CARD, D. H., J. S. BUIS, R. D. WRIGLEY, and C. A. HLAVKA, Evaluation of Thematic Mapper Inter-Band Registration and Noise Characteristics (abstract only), p. 856
CARNAHAN, WALTER H., KI PARK, and JIEN BAI ZHOU, Variations of Thematic Mapper Line Spread Function in Central Illinois Imagery, p. 801
CHADWELL, CARL, GARY MOHNACSKY, JIEN BAI ZHOU, Variations of Thematic Mapper Line Spread Function in Central Illinois Imagery, p. 801
CHAMARD, R. R. "SKY," E. Line Tracer: An Economical Digitizing System, p. 87
Characterization and Comparison of Landsat-4 and -5 Thematic Mapper Data, MICHAEL D. METZLER and WILLIAM A. MALILA (abstract only), p. 869
CHAN, KELLY K. L., L cating 'Lakes' on Digital Terrain Model, p. 68
CHAPMAN, M. A., A. L. KOK, and J. A. R. BLAIS, Digital Terrain Modelling and Applications, p. 546
CIHLAR, J., F. J. AHERN, M. BERNIER, K. P. B., THOMSON, Thematic Mapper Evaluation for Agriculture and Forestry in Canada: Initial Results, p. 902
CLARK, BILL P. and ALFRED JOHNSON, Creating an Optimized Color Balance for TM and MSS Imagery, p. 821
Coefficient of Agreement as a Measure of Thematic Classification Accuracy, A, GEORGE H. ROSENFIELD and KATHERINE FITZPATRICK-LINS (abstract only), p. 790
Comparative Evaluations of the Geodetic Accuracy and Cartographic Potential of Landsat-4/5 TM Image Data, R. WELCH, T. R. JORDAN, and M. EHLERS (abstract and summary), pp. 857, 874, resp.
Comparing the Predicted Positioning Costs of Doppler and GPS Technology, JAMES K. CROSSFIELD, p. 276
Comparison of Classification Techniques Using Thematic Mapper and Multi-Spectral Scanner Data, for Land Cover Classification, A, LANE T. SCHMIDT and BURL I. NAUGLE, p. 683
Comparison of Linears and Curvilinears Mapped from Digitally Processed Landsat Thematic Mapper Data to Faults Depicted on Geologic Maps, A, DIANE M. BAUMGARTEN, p. 526
Comparison of the Information Contents of Landsat TM and MSS Data, WILLIAM A. MALILA (abstract only), p. 872
Comprehensive Remote Sensing Course Offering, A, C. DALE ELIFRITS and DAVID J. BARR, p. 949
Computation of Constrained Vertical Curves, NAGUIB F. DANIAL, p. 113
Computer Applications for Intensive Forest Management, BILL MOULTON and BRIAN RABER, p. 11
Computerized System for Integrating Vector and Satellite Data, A, ELMARIE JANSEN VAN VUUREN, p. 636
Contract Surveyors, LANE J. BOUMAN, p. 413
COOK, DEBRA A., ERIC M. ELIASON, PATRICIA T. ELIASON, and HIGH H. KIEFFER, Intraband Radiometric Performance of the Landsat Thematic Mappers (abstract only). p. 851
COOPER, GRAHAM H., Distance Education for Surveyors, p. 292
COUTTS, D. L., N. MINIELLY, B. D. LINK, and R. KWOK, TM Precision Geocoded Products from the Mosaics System, p. 843
Creating amd Discontinuing Highways in Indiana D. A. WAHLSTRON. p. 229
CROSSFIELD, JAMES K., Comparing the Predicted Positioning Costs of Doppler and GPS Technology, p. 276
CROSSFILED, JAMES K., and DWAYNE A. MCCALISTER, The Field Positioning Unit, p. 266
CURTIS, KENNETH S., The Johnson-Kidder Era in the General Land Office and a Hoosier's Contribution (abstract only), p. 411
CUSHNIE, JANIS L. and PAULA ATKINSON, The Effect of Spatial Filtering on Scene Noise and Boundary Detail in Thematic Mapper Imagery (abstract only), p. 854
Dane County Inertial Surveying Experiment, NANCY R. VON MEYER, DAVID K. KROHN, DAVID F. MEZERA, and ALAN P. VONDEROHE, p. 239
DANIEL, NAGUIB F., Computation of Constrained Vertical Curves, p. 113

Database Support for Geographic Information Systems: The Wild System 9 Approach, J. P. LAUZON, R. MC LAREN, and C, HARWOOD, p. 583
Data Handling in the Integrated Photogrammetric Facility (IDPF), GARY R. VANDERHAVEN, p. 603
DE GLORIA, STEPHEN D. and ANDREW S. BENSON, Evaluation of the Geometric Quality of Thematic Mapper Photographic Data (abstract only), p. 876
DE GLORIA, STEPHEN D. and ANDREW S. BENSON, Interpretation of Landsat-4 Thematic Mapper and Multispectral Scanner Data for Forest Surveys (abstract only), p. 855
Delineation of Soil Drainage Classes Utilizing Regression Modified Landsat Ratio Data, JAMISON MOORE, and PAUL MAUSEL, p. 696
DEISTER, ROBIN R. P., DAVID J. BARR, and DASHUM ZHANG, Geological Analysis of Landsat MSS Data in Wumin-Daminshan Area Guangxi Autonomous Region, China, p. 506
DESACHY, JACKY, GERALD BEGNI, BENOIT BOISSIN, and JACQUELINE PERBOS, Investigation of Landsat-4 Thematic Mapper Line-to-Line and Band-to-Band Registration and Relative Detector Calibration (abstract only), p. 861
Detection and Delineation of Mine-Related Subsidence in the Western Kentucky Coal Field, PATRICK H. MC HAFFIE and RICHARD E. SERGEANT, p. 538
Determination of Astro-Latitudes and Astro-Longitudes Using x, y, z Coordinates on the Celestial Spere, L. A. KIVIOJA and J. A. MIHALKO, p. 109
Determination of the Relative Inclinations of Surfaces and Its Quality, H. N. NAGARAJA, p. 133
Digital Mapping of the Texas Land Survey Network, ROBERT J. KEATING, p. 4
Digital Mapping Techniques for the Inventory of Aquatic Vegetation, R. WELCH, S. S. FUNG, and R. B. SLACK (abstract only), p. 736
Digital Terrain Modelling and Applications, J. A. R. BLAIS, M. A. CHAPMAN, and A. L. KOK, p. 646
Discussion of Eminent Domain, Adverse Possession, Best Evidence and Prescriptive Rights, A, NELSON L. PRALL, p. 219
Distance Education for Surveyors, GRAHAM H. COOPER, p. 292
DUFF, PAUL F., ANTHONY J. FITZGERALD, JENNIFER M. MURPHY, and FRANCIS J. AHERN, Assessment of Radiometric Accuracy of Landsat-4 and -5 Thematic Mapper Data Products from Canadian Production System (abstract only), p. 862
DUGGIN, M. J., H. SAKAVAT, and J. LINDSAY, The Systematic and Random Variations in Thematic Mapper Digital Radiance Data (abstract only), p. 867
DURGIN, PAUL M., Surveyor's Ethics—On What Grounds?, p. 305
Effect of Spatial Filtering on Scene Noise Boundary Detail in Thematic Mapper Imagery, The, JANIS L. CUSHNIE and PAULA ATKINSON (abstract only), p. 854
EHLERS, M., R. WELCH, and T. R. JORDAN, Comparative Evaluations of the Geodetic Accuracy and Cartographic Potential of Landsat-4/5 TM Image Data (abstract and summary), pp. 857, 874, resp.
ELIASON, ER . M., PATRICIA T. ELIASON, HIGH H. KIEFFER, and DEBRA A. COOK, Interband Radiometric Performance of the Landsat Thematic Mappers (abstract only), p. 851
ELIASON, PATRICIA T., HIGH H. KIEFFER, DEBRA A. COOK, and ERIC M. ELIASON, Interband Radiometric Performance of the Landsat Thematic Mappers (abstract only), p. 851
ELIFRITS, C. DALE and DAVID J. BARR, A Comprehensive Remote Sensing Course Offering, p. 949
E. Line Tracer: An Economical Digitizing System, R. R. "SKY" CHAMARD, p. 87
Enhanced Rock Discrimination Using Landsat-5 Thematic Mapper (TM) Data, HERBERT W. BLODGET, HERBERT W., CONSTANCE G. ANDRE and RICHARD F. MARCELL, p. 912
Estimation of Area Using Optimum Dot-Grid Density with Aerial Photographs, LAWRENCE R. GERING, ROBERT L. BAILEY, and WILLIAM A. SHAIN, p. 811
Estimation of Mean High Water from a Best Fit Sine Curve of Tidal Information, RAYMOND J. HINTZ and DAVID W. GIBSON, p. 124
Ethics, Law and the Professional, ROBERT W. FOSTER, p. 312
Evaluating the Accuracy of Electronic Theodolites, JOSEPH V. R. PAIVA, p. 249
Evaluation of a Method for Direct Input of Comparator Coordinates Into an Analytical Bundle Adjustment, RAYMOND J. HINTZ, p. 573
Evaluation of the Geometric Quality of Thematic Mapper Photographic Data, ANDREW S. BENSON and STEPHEN D. DE GLORIA (abstract only), p. 876
Evaluation of Thematic Mapper Inter-Band Registration and Noise Characteristics, R. C. WRIGLEY, C. A. HLAVKA, D. H. CARD, and J. S. BUIS (abstract only), p. 856
EVERITT, J. H. and P. R. NIXON, Using Color Aerial Photogrpahy to Detect Camphorweed Infestations on South Texas Rangelands, p. 431
EXLER, RONALD D., DAVID D. SELDEN, AYAH JOHNSON, DOUGLAS MARDER, and JEFF BEAUBIER, Mapping Cancer Mortality Rates with Computer Graphics, p. 45
Expert System Technology Applied to Cartograph-

ic Processes—Considerations and Possibilities, GERALD J. GRAKLANOFF, p. 613
FAIN, MICKEY A., Optical Scanning and Interactive Color Graphics: An Integrated Approach to Automated Data Capture, p. 40
Federal Government Turns to Its Own Surveyors, The, STEPHEN G. KOPACH (abstract only), p. 977
FEDOSEJEVS, G., R. BYERS, L. MARJAMA, P. M. TEILLET, and D. G. GOODENOUGH, Radiometric Limitations to Thematic Mapper Image Information Content, p. 892
Fence Lines, Title Lines and Property Lines, RUSSELL E. KASTELLE, p. 210
FEUQUAY, JAY W., PAUL M SEEVERS, and DAVID C. JOHNSTON, Band Combination Selection for Visual Interpretation of Thematic Mapper Data for Resource Management, p. 779
Field Positioning Unit, The, JAMES K. CROSSFIELD and DWAYNE A. MC CALISTER, p. 266
First Natural Resource Inventory, The, RICHARD E. MONTAGE, p. 419
FITZGERALD, ANTHONY J., JENNIFER M. MURPHY, FRANCIS J. AHERN, and PAUL F. DUFF, Assessment of Radiometric Accuracy of Landsat-4 and -5 Thematic Mapper Data Products from Canadian Production Systems (abstract only), p. 862
FITZPATRICK-LINS, KATHERINE and GEORGE H. ROSENFIELD, A Coefficient of Agreement as a Measure of Thematic Classification Accuracy (abstract only), p. 790
FLEMING, E. A., Some Results of Photogrammetric Compilation and Orthophoto Production Using Space Photography, p. 770
FOOTE, H. P., G. E. WUKELIC, J. C. BARNARD, and G. M. PETRIE, Opportunites and Difficulties Associated with Using Landsat Thematic Mapper Data for Determining Surface Water Temperatures, p. 879
Forensic Cartography, PAUL D. MC DERMOTT and THOMAS A. BRUNNER, p. 26
FOSTER, ROBERT W., Ethics, Law and the Professional, p. 312
FREI, U., A. HSU, and L. FUSCO, Thematic Mapper: Operational Activities and Sensor Performance at ESA/Earthnet (abstract only), p. 866
FUNG, S. S., R. B. SLACK, and R. WELCH, Digital Mapping Techniques for the Inventory of Aquatic Vegetation (abstract only), p. 736
FUSCO, L., U. FREI, and A. HSU, Thematic Mapper: Operational Activities and Sensor Performance at ESA/Earthnet (abstract only), p. 86
GEIB, GEORGE W., The Political Background of the Land Ordinance of 1785, p. 345
Geological Analysis of Landsat MSS Data in Wumin-Daminshan Area Guangxi Autonomous Region China, DASHUN ZHANG, ROBIN R. P. DEISTER, and DAVID J. BARR, p. 506
Geodetic Form Fitting in Industrial Metrology Using Computer-Assisted Theodolites, EDWARD M. MIKHAIL and DAVID C. MULAWA, p. 671
Geometric Quality of a Thematic Mapper Image of the United Kingdom, JOHN R. HARDY, p. 937
Geoscience Component of Cartographic Education, The, THOMAS W. HODLER and C. LYNN RUSCHER, p. 54
GERING, LAWRENCE R., ROBERT L. BAILEY, and WILLIAM A. SHAIN, Estimation of Area Using Optimum Dot-Grid Density with Aerial Photographs, p. 811
GIBSON, DAVID W. and RAYMOND. J. HINTZ, Estimation of Mean High Water From a Best Fit Sine Curve of Tidal Information, p. 124
GOKHMAN, B., An Analysis of Landsat Thematic Mapper P-Product Internal Geometry and Conformity to Earth Surface Geometry (abstract only), p. 864
GOODELL, JOHN D., Limiting Liability with Positional Tolerance (title only), p. 996
GOODENOUGH, D. G., G. FEDOSEJEVA, R. BYERS, L. MARJAMA, and P. M. TEILLET, Radiometric Limitations to Thematic Mapper Image Information Content, p. 892
GOREHAM, DENNIS B., LELAND D. WHITEMILL, and RICHARD L. MILBURN, NASA's HR-732 Large Format Reconnaissance Camera: A Case Study for USFS Mapping Purposes, p. 652
Graduated Polygons as a Cartographic Technique, BARBARA TAYLOR HILL, DEBORAH PHILLIPS KING, and THOMAS L. NASH, p. 59
GRAKLANOFF, GERALD J., Expert System Technology Applied to Cartographic Processes—Considerations and Possibilities, p. 613
GRUNTHAL, MELVYN C. and STEVEN N. BELL, Analysis of Short-Term Global Positioning System Observations, p. 980
HALLADA, WAYNE, J. BODECHTEL, and VINCENT V. SALOMONSON, Preliminary Comparisons in the Performance of the Landsat Thematic Mapper and the Modular Optoelectronic Multispectral Scanner (MOMS), (summary), p. 877
HANSON, WILLIAM A. and RALPH BERNSTEIN, Analysis & Correction of Landsat 4 & 5 Thematic Mapper Sensor Data, p. 960
HARDY, JOHN R., Geometric Quality of a Thematic Mapper Image of the United Kingdom, p. 937
HARWOOD, C., J. P. LAUZON, and R. MC LAREN, Database Support for Geographic Information Systems: The Wild System 9 Approach, p. 583
HASSAN, MOHSEN MOSTAFA, Spectral Analysis of Terrain Profiles for the Digital Filtering of DEM Data, p. 792
HILL, BARBARA TAYLOR, DEBORAH PHIL-

LIPS KING, and THOMAS L. NASH, Graduated Polygons as a Cartographic Technique, p. 59
HINTZ, RAYMOND J., Evaluation of a Method for Direct Input of Comparator Coordinates into an Analytical Bundle Adjustment, p. 573
HINTZ, RAYMOND J. and DAVID W. GIBSON, Estimation of Mean High Water from a Best Fit Sine Curve of Tidal Information, p. 124
HLAVKA, C. A., D. H. CARD, J. S. BUOS, and R. C. WRIGLEY, Evaluation of the Thematic Mapper Inter-Band Registration and Noise Characteristics (abstract only), p. 856
HODLER, THOMAS W. and C. LYNN RUSCHER, The Geoscience Component of Cartographic Education, p. 54
HOFFER, ROGER M. and P. W. MUELLER, Interpretation of Satellite and Aircraft L-Band Synthetic Aperture Radar Imagery, p. 465
HOFFER, R. M., P. W. MUELLER, and D. F. LOZANO-GARCIA, Multiple Incidence Angle Shuttle Imaging Radar Data for Discriminating Forest Cover Types, p. 476
HOFMANN, OTTO, The Influence of the Three-Line-Stereo Push-Broom Scanner and Flight Parameters on the Accuracy of the DPS-Compilations Process, p. 748
HOLZ, ROBERT K., PAMELA L. PHILLIPS, and R. STEVEN NEREM, Spatial Patterns Interpreted from NOAA-n AVHRR Satellite Data, p. 705
HOOPER, DAVID, Raster-Based Contour Plotting from Digital Elevation Models Using Mini- or Microcomputers, p. 196
HOSTROP, BERNARD W., and DOUGLAS J. WILCOX, Public Lands Surveying and High Tech (abstract only), 417
HOWE, ROBERT C., Surficial Geologic Mapping Halloran Springs Area, California, Through Ratioing of Aircraft Multispectral Data, p. 517
HSU, A., L. FUSCO, and U. FREI, Thematic Mapper: Operational Activities and Sensor Performance at ESA/Earthsat (abstract only), p. 866
HUANG, KI-YI and KAMLESH LULLA, Lake Michigan Water Quality Analysis Using Thematic Mapper Data, p. 737
HUEGLI, PETER, Wild System 9. p. 659
HYDE, RICHARD F., A Synoptic Assessment of Selected MSS Classification Approaches Using a GIS Environment (abstract only), p. 582
IBM PC/AT Microcomputer-Based Image Processing Laboratory, An, SCARPACE, FRANK L., RALPH W. KIEFER, THOMAS M. LILLESAND, and PETER R. WEILER, p. 495
Indiana—The Birthplace of the Present-Day United States Public Land System, JOHN G. MCENTYRE, p. 362
Influence of the Three-Line-Stereo Push-Broom Scanner and Flight Parameters on the Accuracy of the DPS-Compilation Process, The, OTTO HOFMANN, p. 748
Integration of Remotely Sensed Digital Data into a Computerized Petroleum Exploration Model, The: The Illinois Basin, LYNN SHELBY, JANE BENSON, and THOMAS C. KIND, p. 557
Interpretation of Landsat-4 Thematic Mapper and Multispectral Scanner Data for Forest Surveys, ANDREW S. BENSON and STEPHEN D. DEGLORIA, p. 855
Interpretation of Satellite and Aircraft L-Band Synthetic Aperture Radar Imagery, P. W. MUELLER and R. M. HOFFER, p. 465
Intraband Radiometric Performance of the Landsat Thematic Mappers, HIGH H. KIEFFER, DEBRA A. COOK, ERIC M. ELIASON, and Patricia T. ELIASON (abstract only), p. 851
Investigation of Landsat-4 Thematic Mapper Line-to-Line and Band-to-Band Registration and Relative Detector Calibration, JACK DESACHY, GERALD BEGNI, BENOIT BOISSIN, and JACQUELINE PERBOS (abstract only), p. 861
Investigations of Thematic Mapper and Multispectral Scanner Data Applications, FREDERICK A. WALTZ and DONALD T. LAUER (abstract only), p. 922
IRONS, J., R. S. LETTY, R. NELSON, B. MARKHAM, D. WILLIAMS, and D. TOLL, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863
JOHNSON, ALFRED and BILL P. CLARK, Creating an Optimized Color Balance for TM and MSS Imagery, p. 821
JOHNSON, AYAH, DOUGLAS MARDER, JEFF BEAUBIER, RONALD D. EXLER, and DAVID D. SELDEN, Mapping Cancer Mortality Rates with Computer Graphics, p. 45
JOHNSON, HILDEGARD BINDER, The Rectangular Legacy—A Geographer's Perspective (abstract only), p. 979
JOHNSTON, DAVID C., JAY W. FEUQUAY, and PAUL M. SEEVERS, Band Combination Selection for Visual Interpretation of Thematic Mapper Data for Resource Management, p. 779
Johnson-Kidder Era in the General Land Office and a Hoosier's Contribution, The, KENNETH S. CURTIS (abstract only), p. 411
JONES, WILLIAM H. and PAUL E. NEEDHAM, North American Datum 1983 USGS National Mapping Program Inplementation Strategy, p. 186
JORDAN, T. R., M. EHLERS, and R. WELCH, Comparative Evaluations of the Geodetic Accuracy and Cartographic Potential of Landsat-4/5 TM Image Data (abstract and summary), pp. 857, 874, resp.
KASTELLE, RUSSELL E., Fence Lines, Title Lines and Property Lines, p. 210

KEATING, J. ROBERT, Digital Mapping of the Texas Land Survey Network, p. 4

KELTON, KYLE, WILLIAM A. SHAIN, and LAWRENCE NIX, Supervised and Unsupervised Methods of Spectral Classification of Vegetative Types in the South Carolina Coastal Plain, p. 440

Keynote Address, STEVEN C. BEERING, p. 1

KIEFER, RALPH W., THOMAS M. LILLESAND, PETER R. WELLER, and FRANK L. SCARPACE, An IBM PC/AT Microcomputer-Based Image Processing Laboratory, p. 495

KIEFFER, HIGH H., DEBRA A. COOK, ERIC M. ELIASON, and PATRICIA T. ELIASON, Intraband Riadiometric Performance of the Landsat Thematic Mappers (abstract only), p. 851

KIND, THOMAS C., LYNN SHELBY, and JANE BENSON, The Integration of Remotely Sensed Digital Data into a Computerized Petroleum Exploration Model: The Illinois Basin, p. 557

KING, DEBORAH PHILLIPS, THOMAS L. NASH, and BARBARA TAYLOR HILL, Graduated Polygons as a Cartographic Technique, p. 59

KIVIOJA, L. A. and J. A. MIHALKO, Determination of Astro-Latitudes and Astro-Longitudes Using x, y, z Coordinates on the Celestial Sphere, p. 109

KOK, A. L., J. A. R. BLAIS, and M. A. CHAPMAN, Digital Terrain Modelling and Applications, p. 646

KOPACH, STEPHEN G., The Federal Government Turns to Its Own Surveyors (abstract only), p. 977

KROHN, DAVID K., DAVID F. MEZERA, ALAN P. VONDEROHE, and NANCY R. VON MEYER, Dane County Inertial Surveying Experiment, p. 239

KWOK, R., D. L. CURTIS, N. MINIELLY, and B. D. LINK, The Precision Geocoded Products from the Mosaics System, p. 843

Lake Michigan Water Quality Analysis Using Thematic Mapper Data, KAI-YI HUANG and KAMLESH LULLA, p. 737

Landsat-4 and Landsat-5 MSS Coherent Noise: Characterization and Removal, JAMES C. TILTON, BRIAN L. MARKHAM, and WILLIAM L ALFORD, p. 860

Landsat-4/5 Thematic Mapper Data Quality Analysis, ERICK MALARER, LUIS A. BARTOLUCCI, D. FABIAN LOZANO, PAUL E. ANUTA, and CLARE D. MC GILLEM (abstract only), p. 868

Landsat MSS Absolute Radiometric Calibration, BRIAN L. MARKHAM and JOHN L. BARKER (abstract only), p. 853

Landsat Thematic Mapper Image-Derived MTF, R. A. SCHOWENGERDT, C. ARCHWAMETY, and R. C. WRIGLEY (abstract only), p. 871

Land Survey in Colonial New Hampshire, WILLIAM H. WALLACE (abstract only), p. 336

Large Format Camera (LFC) Maiden Voyage, BERNARD H. MOLLBERG (abstract only), p. 778

LARSON, LARRY and BOB ZICKWOLF, The Small Tracts Act, p. 203

LATHROP, RICHARD G., JR. and THOMAS M. LILLESAND, Use of Thematic Mapper Data to Assess Water Quality in Southern Green Bay and West-Central Lake Michigan, p. 715

LATTY, R. S., R. NELSON, B. MARKHAM, D. WILLIAMS, D. TOLL, and J. IRONS, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863

LAUER, DONALD T. and FREDERICK A. WALTZ, Investigations of Thematic Mapper and Multispectral Scanner Data Applications (abstract only), p. 922

LAUZON, J. P., R. MC LAREN, and C. HARWOOD, Database Support for Geographic Information Systems: The Wild System 9 Approach, p. 583

LILLESAND, THOMAS M. and RICHARD G. LATHROP, JR., Use of Thematic Mapper Data to Assess Water Quality in Southern Green Bay and West-Central Lake Michigan, p. 715

LILLESAND, THOMAS M, PETER R. WEILER, FRANK L. SCARPACE, and RALPH W. KIEFER, An IBM PC/AT Microcomputer-Based Image processing Laboratory, p. 495

LILLESAND, THOMAS M. and THOMAS H. C. LO, The Wisconsin Experimental Program for Satellite Image Mapping Using Thematic Mapper Data, p. 757

Limiting Liability with Positional Tolerance, JOHN D. GOODELL (title only), p. 996

LINDSAY, J., M. J. DUGGIN, and H. SAKHAVAT, The Systematic and Random Variations in Thematic Mapper Digital Radiance Data (abstract only), p. 867

LINK, B. D., R. KWOK, D. L. COUTTS, and N. MINIELLY, TM Precision Geocoded Products From the Mosaics System, p. 843

LO, THOMAS H. C. and THOMAS M. LILLESAND, The Wisconsin Experimental Program for Satellite Image Mapping Using Thematic Mapper Data, p. 757

Locating 'Lakes' on Digital Terrain Model, KELLY K. L. CHAN, p. 68

LOZANO, D. FABIAN, PAUL E. ANUTA, CLARE D. MC GILLEM, ERICK MALARET, and LUIS A. BARTOLUCCI, Landsat-4/5 Thematic Mapper Data Quality Analysis (abstract only), p. 868

LOZANO-GARCIA, D. FABIAN, and ROGER M. HOFFER, The Use of Multitemporal Landsat MSS Data for Studying Forest Cover Types, p. 450

LOZANO-GARCIA, D. F., R. M. HOFFER, and P. W. MUELLER, Multiple Incidence Angle Shuttle Imaging Radar Data for Discriminating Forest Cover Types, p. 476

LULLA, KAMLESH and KAI-YI HUANG, Lake Michigan Water Quality Analysis Using Thematic Mapper Data, p. 737

MacIntosh Microcomputer as a Digital Image Processor, The, WASOWSKI, RONALD J., p. 625

NAD 83, Is It Really Here?, ELIZABETH B. WADE, p. 167

Mapping Cancer Mortality Rates with Computer Graphics, EXLER, RONALD D., DAVID D. SELDEN, AYAH JOHNSON, DOUGLAS MARDER, and JEFF BEAUBIER, p. 45

MAHON, JOHN K., The Regular Army and The Land Ordinance of 1785, p. 352

MALARET, ERICK, LUIS A. BARTOLUCCI, D. FABIAN LOZANO, PAUL K. ANUTA, and CLARE D. MC GILLEM, Landsat-4/5 Thematic Mapper Data Quality Analysis (abstract only), p. 868

MALILA, WILLIAM A., Comparison of the Information Contents of Landsat TM and MSS Data (abstract only), p. 872

MALILA, WILLIAM A. and MICHAEL D. METZLER, Characterization and Comparison of Landsat-4 and -5 Thematic Mapper Data (abstract only), p. 869

MARCELL, RICHARD F., HERBERT W. BLODGET, and CONSTANCE G. ANDRE, Enhanced Rock Discrimination Using Landsat-5 Thematic Mapper (TM) Data, p. 912

MARDER, DOUGLAS, JEFF BEAUBIER, RONALD D. EXLER, DAVID D. SELDEN, and AYAH JOHNSON, Mapping Cancer Morality Rates with Computer Graphics, p. 45

MARJAMA, L., P. M. TEILLET, D. G. GOODENOUGH, G. FEDOSEJEVA, and R. BYERS, Radiometric Limitations to Thematic Mapper Image Information Content, p. 892

MARKHAM B., D. WILLIAMS, D. TOLL, J. IRONS, R. S. LATTY, and R. NELSON, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863

MARKHAN, BRIAN L., WILLIAM L. ALFORD and JAMES C. TILTON, Landsat-4 and Landsat-5 MSS Coherent Noise: Characterization and Removal, p. 860

MARKHAM, BRIAN L. and JOHN L. BARKER, Landsat MSS Absolute Radiometric Calibration (abstract only), p. 853

MAUSEL, PAUL and JAMISON MOORE, Delineation of Soil Drainage Classes Utilizing Regression Modified Landsat Ratio Data, p. 696

MC CALISTER, DWAYNE A. and JAMES K. CROSSFIELD, The Field Positioning Unit, p. 266

MC DERMOTT, PAUL D. and THOMAS A. BRUNNER, Forensic Cartography, p. 26

MC ENTYRE, JOHN G., Indiana—The Birthplace of the Present-Day United States Public Land System, p. 362

MC GILLEM, CLARE D., ERICK MALARET, LUIS A. BARTOLUCCI, D. FABIAN LOZANO, and PAUL E. ANUTA, Landsat-4/5 Thematic Mapper Data Quality Analysis (abstract only), p. 868

MC HAFFIE, PATRICK H. and RICHARD E. SERGEANT, Detection and Delineation of Mine-Related Subsidence in the Western Kentucky Coal Field, p. 538

MC LAREN, R., C. HARWOOD, and J. P. LAUZON, Database Support for Geographic Information Systems: The Wild System 9 Approach, p. 583

Measurement and Computation of Cyclic Errors of EDM Instruments at Different Ranges, JOHN M. RUEGER, p. 94

Measurement of Target Displacement with Matching Methods, GUOPING ZHOU and TIMOTHY ROBERTS (abstract only), p. 682

MEREDITH, ELEANORE S., Spot Satellite Data Processing & Distribution in the United States, p. 988

Methods for Destriping Landsat TM Images: A Possibility Study for an On-Line Destriping Process in Tips, CHRIS J. PETERSON and DEMETRIOS J. POROS (abstract only), p. 870

METZLER, MICHAEL D. and WILLIAM A. MALILA, Characterization and Comparison of Landsat-4 and -5 Thematic Mapper Data (abstract only), p. 869

MEZERA, DAVID F., ALAN P. VONDEROHE, NANCY R. VON MEYER, and DAVID K. KROHN, Dane County Inertial Surveying Experiment, p. 239

MIHALKO, J. A. and L. A. KIVIOJA, Determination of Astro-Latitudes and Astro-Longitudes Using x, y, z Coordinates on the Celestial Sphere, p. 109

MIKHAIL, EDWARD M. and DAVID C. MULAWA, Geometric Form Fitting in Industrial Metrology Using Computer-Assisted Theodolites, p. 671

MILBURN, RICHARD L., DENNIS B. GOREHAM, and LELAND D. WHITEMILL, NASA's HR-732 Large Format Reconnaissance Camera: A Case Study for USFS Mapping Purposes, p. 652

MILLER, JOHN M. and GRETA J. BURGER, Applications of Landsat MSS Imagery with Very Low Sun-Angles, p. 832

Millimetric Coordinates (NMC) for Image Locations: Methods, Applications and Advantages, p. 486

MINICH, HILLARY, Skydusky Hollow Photogrammetric Mapping Project, p. 78

MINIELLY, N., B. D. LINK, R. KWOK, and D. L. COUTTS, TM Precision Geocoded Products from the Mosaics System, p. 843

MOHNACSKY, GARY, KEVIN STACY, and CARL CHADWELL, The Benefits of a Bachelor of Science in Surveying: A Student's Viewpoint, p. 331

MOLLBERG, BERNARD H., Large Format Camera (LFC) Maiden Voyage (abstract only), p. 778

MONTAGE, RICHARD E., The First Natural Resource Inventory, p. 419

MOORE, JAMISON and PAUL MAUSEL, Delineation of Soil Drainage Classes Utilizing Regression Modified Landsat Ratio Data, p. 696

MORRISH, PEGGY, National Geodetic Survey Digital Products, p. 176

MOULTON, BILL and BRIAN RABER, Computer Applications for Intensive Forest Management, p. 11

MUELLER, P. W. and R. N. HOFFER, Interpretation of Satellite and Aircraft L-Band Synthetic Aperture Radar Imagery, p. 465

MUELLER, P. W., D. F. LOZANO-GARCIA, and R. M. HOFFER, Multiple Incidence Angle Shuttle Imaging Radar Data for Discriminating Cover Types, p. 476

MULAWA, DAVID C. and EDWARD M. MIKHAIL, Geometric Form Fitting in Industrial Metrology Using Computer-Assisted Theodolites, p. 671

Multiple Incidence Angle Shuttle Imaging Radar Data for Discrimination Forest Cover Types, R. M. HOFFER, P. W. MUELLER, and D. F. LOZANO-GARCIA, p. 476

MURPHY, JENNIFER M., FRANCIS J. AHERN, PAUL F. DUFF, and ANTHONY J. FITZGERALD, Assessment of Radiometric Accuracy of Landsat-4 and -5 Thematic Mapper Data Products from Canadian Production Systems (abstract only), p. 862

NAGARAJA, H. N., Determination of the Relative Inclinations of Surfaces and Its Quality, p. 133

NAGEL, RANDALL W. and DONALD M. CAMP, Superpositioning of Digital Elevation Data with Analog Imagery for Data Editing, p. 596

NASA's JR-732 Large Format Reconnaissance Camera: A Case Study for USFS Mapping Purposes, LELAND D. WHITMILL, RICHARD L. MILBURN, and DENNIS B. GOREHAM, p. 652

NASH, THOMAS L., BARBARA TAYLOR HILL, and DEBORAH PHILLIPS KING, Graduated Polygons as a Cartographic Technique, p. 59

National Geodetic Survey Digital Products, PEGGY MORRISH, p. 176

NAUGLE, BURL I. and LANE T. SCHMIDT, A Comparison of Classification Techniques Using Thematic Mapper and Multi-Spectral Scanner Data, for Land Cover Classification, p. 683

North American Datum 1983 USGS National Mapping Program Implementation Stategy, PAUL E. NEEDHAM and WILLIAM J. JONES, p. 186

NELSON, R., B. MARKHAM, D. WILLIAMS, D. TOLL, and J. IRONS, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data, p. 863

NEREM, R. STEVEN, ROBERT K. HOLZ, and PAMELA L. PHILLIPS, Spatial Patterns Interpreted from NOAA-n AVHRR Satellite Data, p. 705

New Adjustment of the North American Vertical Datum of 1988 (NAVD 88), DAVID B. ZILKOSKI and GARY M. YOUNG, p. 152

NIX, LAWRENCE, KYLE KELTON, and WILLIAM A. SHAIN, Supervised and Unsupervised Methods of Spectral Classification of Vegetative Types in the South Carolina Coastal Plain, p. 440

NIXON, P. R. and J. H. EVERITT, Using Color Aerial Photography to Detect Camphorweed Infestations on South Texas Rangelands, p. 431

North American Datum 1983 USGS National Mapping Program Implementation Strategy, WILLIAM J. JONES and PAUL E. NEEDHAM, p. 186

O'CALLAGHAN, JERRY A., Western Lands: Catalyst for Nationhood 1776-1784 (abstract only), p. 335

Operational Techniques of GPS as a Survey Instrument, JAMES L. STOWELL and GEORGE E. OTT, JR., p. 286

Opportunites and Difficulties Associated with Using Landsat Thematic Mapper Data for Determining Surface Water Temperatures, G. E. WUKELIC, J. C. BARNARD, G. M. PETRIE, and H. P. FOOTE, p. 879

Optical Scanning and Interactive Color Graphics: An Integrated Approach to Automated Data Capture, MICKEY A. FAIN, p. 40

Order Mid Chaos: Regularity in Southern Colonial Land Surveys, EDWART T. PRICE, p. 357

OTT, GEORGE E., JR. and JAMES L. STOWELL, Operational Techniques of GPS as a Survey Instrument, p. 286

PAIVA, JOSEPH V. R., Evaluating the Accuracy of Electronic Theodolites, p. 249

PARK, KI, JIAN BAI ZHOU, and WALTER H. CARNAHAN, Variations of Thematic Mapper Line Spread Function in Central Illinois Imagery, p. 801

PATTERSON, SAMUEL G. and JOHN B. REHDER, An Assessment of Conversion and Loss of Mangroves Using Remote Sensing Imagery on Marco Island, Florida, p. 728

PERBOS, JACQUELINE, JACK DESACHY, GERALD BEGNI, and BENOIR BOISSIN, Investigation of Landsat-4 Thematic Mapper Line-to-Line and Band- to-Band Registration and Relative Detector Calibration (abstract only), p. 861

LATTY, R. S., R. NELSON, B. MARKHAM, D. WILLIAMS, D. TOLL, and J. IRONS, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863

PETERSON, CHRIS J. and DEMETRIOS J. POROS, Methods for Destriping Landsat TM Images: A Feasibility Study for an On-Line Destriping Process in Tips (abstract only), p. 870

PETRIE, G. M., H. P. FOOTE, G. E. WUKELIC, and J. C. Barnard, Opportunites and Difficulties Associated with Using Landsat Thematic Mapper Data for Determining Surface Water Temperatures, p. 879

PHILLIPS, PAMELA L., R. STEVEN NEREM, and ROBERT K. HOTZ, Spatial Patterns Interpreted from NOAA-n AVHRR Satellite Data, p. 705

Political Background of the Land Ordinance of 1785, The, GEORGE W. GEIB, p. 346

POROS, DEMETRIOS J. and CHRIS J. PETERSON, Methods for Destriping Landsat TM Images: A Feasibility Study for an On-Line Destriping Process in Tips (abstract only), 870

Post Launch Corrections for TM 5 Radiometry in Tips, AMRENDRA SINGH (abstract only), p. 858

PRALL, NELSON L., A Discussion of Eminent Domain, Adverse Possession, Best Evidence and Prescriptive Rights, p. 219

Preliminary Comparisons in the Performance of the Landsat Thematic Mapper and the Modular Optoelectronic Multispectral Scanner (MOMS), VINCENT V. SALOMONSON, WAYNE HALLADA, and J. BODECHTEL, (summary) p. 877

Preliminary Results of the Effect of Resampling on Thematic Mapper Imagery, PAULA ATKINSON, p. 929

PRICE, EDWARD T., Order Mid Chaos: Regularity in Southern Colonial Land Surveys, p. 337

Problems in Surveying and Mapping Education: The Ferris State College Alternative, ROBERT BURTCH, p. 321

Public Land Surveying in Illinois, JOE D. WEBBER, p. 371

Public Land Surveying and High Tech, BERNARD W. HOSTROP and DOUGLAS J. WILCOX (abstract only), p. 417

RABER, BRIAN and BILL MOULTON, Computer Applications for Intensive Forest Management, p. 11

Radiometric Limitations to Thematic Mapper Image Information Content, P. M. TEILLET, D. G. GOODENOUGH, G. FEDOSEJEVA, R. BYERS, and L. MARJANA, p. 892

Raster-Based Contour Plotting from Digital Elevation Models Using Mini- or Microcomputers, DAVID HOOPER, p. 196

Rectangular Legacy—A Geographer's Perspective, The, HILDEGARD BINDER JOHNSON (abstrct only), p. 979

Regular Army and The Land Ordinance of 1785, The, JOHN K. MAHON, p. 352

REHDER, JOHN B. and SAMUEL G. PATTERSON, An Assessment of Conversion and Loss of Mangroves Using Remote Sensing Imagery on Marco Island, Florida, p. 728

ROBERTS, TIMOTHY and GUOPING ZHOU, Measurement of Target Displacement with Matching Methods (abstract only), p. 682

ROSENFIELD, GEORGE H. and KATHERINE FITZPATRICK-LINS, A Coefficient of Agee-ment as a Measure of Thematic Classifiction Accuracy (abstract only), p. 790

RUEGER, JOHN M., Measurement and Computation of Cyclic Errors of EDM Instruments at Different Ranges, p. 94

RUSCHER, C. LYNN and THOMAS W. HODLER, The Geoscience Component of Cartographic Education, p. 54

SAKHAVAT, H. J. LINDSAY, and M. J. DUGGIN, The Systematic and Random Variations in Thematic Mapper Digital Radiance Data (abstract only), p. 867

SALOMONSON, VINCENT V., WAYNE HALLADA, and J. BODECHTEL, Preliminary Comparisons in the Performance of the Landsat Thematic Mapper and the Modular Optoelectronic Multispectral Scanner (MOMS), (summary), p. 877

SAMBROOK, RICHARD ALAN, Cadastral Surveys on the Colonial Frontier: Reflections on the Experiences of Aaron Greeley on Mackinac Island, Michigan, p. 403

SCARPACE, FRANK L., RALPH W. KEIFER, THOMAS M. LILLESAND, and PETER R. WEILER, An IBM PC/AT Microcomputer-Based Image Processing Laboratory, p. 495

SCHMIDT, LANE T. and BURL I. NAUGLE, A Comparison of Classification Techniques Using Thematic Mapper and Multi-Spectral Scanner Data, for Land Cover Classification, p. 683

SCHOTT, JOHN B. and WILLIAM J. VOLCHOK, Thematic Mapper Thermal Infrared Calibration (abstract only), p. 873

SCHOERNGERDT, R. A., C. ARCHWAMETY, and R. C. WRIGLEY, Landsat Thematic Mapper Image-Derived MTF (abstract only), p. 871

SEEVERS, PAUL M., DAVID C. JOHNSTON, and JAY W. FEUQUAY, Band Combination Selection for Visual Interpretation of Thematic Mapper Data for Resource Management, p. 799

SELDEN, DAVID D., AYAH JOHNSON, DOUGLAS MARDER, JEFF BEAUBIER, and RONALD D. EXLER, Mapping Cancer Mortality Rates with Computer Graphics, p. 45

SERGEANT, RICHARD E. and PATRICK H. MCHAFFIE, Detection and Delineation of Mine-Re-

lated Subsidence in the Western Kentucky Coal Field, p. 538
SHAIN, WILLIAM A., LAWRENCE NIX, and KYLE KELTON, Supervised and Unsupervised Methods of Spectral Classification of Vegetative Types in the South Carolina Coastal Plain, p. 440
SHAIN, WILLIAM A., LAWRENCE R. GERING, and ROBERT L. BAILEY, Estimation of Area Using Optimum Dot-Grid Density with Aerial Photography, p. 811
SHAW, V. L. and R. D. WORSFOLD, Airborne Star Ice/Iceberg Operational Support—An Industrial Application of Remote Sensing, p. 547
SHELBY, LYNN, JANE BENSON, and THOMAS C. KIND, The Integration of Remotely Sensed Digital Data into a Computerized Petroleum Exploration Model: The Illinois Basin, p. 557
Significance of the Public Land Surveys, The, ROBERT F. BURFORD (title only), p. 976
SINGH, AMRENDRA, Post Launch Corrections for TM 5 Radiometry in Tips (abstract only), p. 858
SINGH, AMRENDRA, TM Radiometric Correction R&D Results and Performance (abstract only), p. 859
Skydusky Hollow Photogrammetric Mapping Project, HILLARY MINICH, p. 78
SLACK, R. B., R. WELCH, and S. S. FUNG, Digital Mapping Techniques for the Inventory of Aquatic Vegetation (abstract only), p. 736
Small Tracts Act, The, BOB ZICKWOLF and LARRY LARSON, p. 203
Some Results of Photogrammetric Compilation and Orthophoto Production Using Space Photography, E. A. FLEMING, p. 770
Spatial Patterns Interpreted from NOAA-n AVHRR Satellite Data, ROBERT K. HOLZ, PAMELA L. PHILLIPS, and R. STEVEN NEREM, p. 705
Spatial Variation of Degree—Day Factor, ANIL K. BAGCHI (abstract only), p. 842
Special Purpose Interactive Real Time Digital Image Processing System, AVIDAN J. AKERIB, p. 595
Spectral Analysis of Terrain Profiles for the Digital Filtering of DEM Data, MOHSEN MOSTAFA, HASSAN, p. 792
Spot Satellite Data Processing & Distribution in the United States, ELEANORE S. MEREDITH, p. 988
SPRINSKY, WILLIAM H., Accuracy of Elevations from Junction Point Adjustments, p. 143
STACY, KEVIN, CARL CHADWELL, and GARY MOHNACSKY, The Benefits of a Bachelor of Science in Surveying: A Student's Viewpoint, p. 331
STOWELL, JAMES L. and GEORGE E. OTT, JR., Operational Techniques of GPS as a Survey Instrument, p. 286
Superpositioning of Digital Elevation Data with Analog Imagery for Data Editing, RANDALL W. NAGEL and DONALD M. CAMP, p. 596
Supervised and Unsupervised Methods of Spectral Classification of Vegetative Types in the South Carolina Coastal Plain, KYLE KELTON, WILLIAM A. SHAIN, and LAWRENCE NIX, p. 440
Surficial Geologic Mapping Halloran Springs Area, California, Through Ratioing of Aircraft Multispectral Data, ROBERT C. HOWE, p. 517
Surveying Michigan's Meridian and Base Lines, BILLY D. BUCKLER, p. 393
Surveyor's Ethics—On What Grounds?, PAUL M. DURGIN, p. 305
Synoptic Assessment of Selected MSS Classification Approaches Using a GIS Environment, A, RICHARD F. HYDE (abstract only), 582
Systematic and Random Variations in Thematic Mapper Digital Radiance Data, The, M. J. DUGGIN, H. SAKHAVAT, and J. LINDSAY (abstract only), p. 867
TEILLET, P. M., D. G. GOODENOUGH, G. FEDOSEJEVA, R. BYERS, and L. MARJANA, Radiometric Limitations to Thematic Mapper Image Information Content, p. 892
Thematic Mapper Evaluation for Agriculture and Forestry in Canada: Initial Results, J. CIHLAR, F. J. AHERN, M. BERNIER, and K. P. B. BERNIER, p. 902
Thematic Mapper Image Processing System: Geometric Correction Performance for Landsat-5, JOAN BROOKS, p. 925
Thematic Mapper: Operational Activities and Sensor Performance at ESA/Earthnet, L. FUSCO, U. FREI, and A. HSU (abstract only), p. 866
Thematic Mapper Thermal Infrared Calibration, JOHN R. SCHOTT and WILLIAM J. VOLCHOK (abstract only), p. 873
THOMSON, K. P. B., J. CIHLER, F. J. AHERN, and M. BERNIER, Thematic Mapper Evaluation for Agriculture and Forestry in Canada: Initial Results, p. 902
TILTON, JAMES C., BRIAN L. MARKHAM, and WILLIAM L. ALFORD, Landsat-4 and Landsat-5 MSS Coherent Noise: Characterization and Removal, p. 860
TM Precision Geocoded Products From the Mosaics System, B. D. LINK, R. KWOK, D. L. COUTTS, and N. MINIELLY, p. 843
TM Radiometric Correction R&D Results and Performance, AMRENDRA SINGH (abstract only, p. 859
TOLL, D., J. IRONS, R. S. LATTY, R. NELSON, and D. WILLIAMS, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863
Two Hundred Years of Instruments, JOHN C. BREWER (title only), p. 978
Use of Multitemporal Landsat MSS Data for Stud-

ying Forest Cover Types, The, D. FABIAN LOZANO-GARCIA and ROGER M. HOFFER, p. 450

Use of Thematic Mapper Data to Assess Water Quality in Southern Green Bay and West-Central Lake Michigan, RICHARD G. LATHROP, JR., and THOMAS M. LILLESAND, p. 715

Using Color Aerial Photography to Detect Camphorweed Infestations on South Texas Rangelands, J. H. EVERITT and P. R. NIXON, p. 431

VAN VUUREN, ELMARIE JANSEN, A Computerized System for Integrating Vector and Satellite Data, p. 636

VANDERHAVEN, GARY R., Data Handling in the Integrated Photogrammetric Facility (IDPF), p. 603

Variations of Thematic Mapper Line Spread Function in Central Illinois Imagery, WALTER H. CARNAHAN, KI PARK, and JIEN BAI ZHOU, p. 801

VOLCHOK, WILLIAM J. and JOHN R. SCHOTT, Thematic Mapper Thermal Infrared Calibration (abstract only), p. 873

VONDEROHE, ALAN P., NANCY R. VON MEYER, DAVID K. KROHN, and DAVID F. MEZERA, Dane County Inertial Surveying Experiment, p. 239

VON MEYER, NANCY R., DAVID K. KROHN, DAVID F. MEZERA, and ALAN P. VONDEROHE, Dane County Inertial Surveying Experiment, p. 239

WADE, ELIZABETH B., NAD 83, Is It Really Here?, p. 167

WAHLSTRON, D. A., Creating and Discontinuing Highways in Indiana, p. 229

WALKER, R. E., B. GOKHMAN, N. A. BRYANT, and A. L. ZOBRIST, An Analysis of Landsat Thematic Mapper P-Product Internal Geometry and Conformity to Earth Surface Geometry (abstract only), p. 864

WALLACE, WILLIAM H., Land Survey in Colonial New Hampshire (abstract only), p. 864

WALTZ, FREDERICK A. and DONALD T. LAUER, Investigations of Thematic Mapper and Multispectral Scanner Data Applications (abstract only), p. 922

WASOWSKI, RONALD J., The MacIntosh Microcomputer as a Digital Image Processor, p. 625

WEBBER, JOE D., Public Land Surveying in Illinois, p. 371

WEILER, PETER R., FRANK L. SCARPACE, RALPH W. KIEFER, and THOMAS M. LILLESAND, An IBM PC/AT Microcomputer-Based Image Processing Laboratory, p. 495

WELCH, R., S. S. FUNG, and R. B. SLACK, Digital Mapping Techniques for the Inventory of Aquatic Vegetation (abstract only), p. 736

WELCH, R., T. R. JORDAN, and M. EHLERS, Comparative Evaluations of the Geodetic Accuracy and Cartographic Potential of Landsat-4/5 TM Image Data (abstract and summary), pp. 857, 874, resp.

Western Lands: Catalyst for Nationhood 1776-1786, JERRY A. O'CALLAGHAN (abstract only), p. 335

WILCOX, DOUGLAS J. and BERNARD W. HOSTROP, Public Lands Surveying and High Tech (abstract only), p. 417

Wild System 9, PETER HUEGLI, p. 659

WILLIAMS, D., D. TOLL, J. IRONS, R. S. LATTY, R. NELSON, and B. MARKHAM, Performance Comparisons Between Information Extraction Techniques Using Variable Spatial Resolution Data (abstract only), p. 863

Wisconsin Experimental Program for Satellite Image Mapping Using Thematic Mapper Data, The, THOMAS M. LILLESAND and THOMAS H. C. LO, p. 757

WORSFORD, R. D. and V. L. SHAW, Airborne Star Ice/Iceberg Operational Support—An Industrial Application of Remote Sensing, p. 547

WRIGLEY, R. C., C. A. HLAVKA, D. H. CARD, and J. S. BUIS, Evaluation of Thematic Mapper Inter-Band Registration and Noise Characteristics (abstract only), p. 856

WRIGLEY, R. C., R. A. SCHOWENGERDT, and C. ARCHWAMETY, Landsat Thematic Mapper Image-Derived MTF (abstract only), p. 871

WUKELIC, G. E., J. C. BARNARD, G. M. PETRIE, and H. P. FOOTE, Opportunities and Difficulties Associated with Using Landsat Thematic Mapper Data for Determining Surface Water Temperatures, p. 879

YOUNG, GARY M. and DAVID B. ZILKOSKI, New Adjustment of the North American Vertical Datum of 1988 (NAVD 88), p. 152

ZHANG, DASHUN, ROBIN R. P. DEISTER, and DAVID J. BARR, Geological Analysis of Landsat MSS Data in Wumin-Daminshan Area Guangxi Autonomous Region, China, p. 506

ZHOU, GUOPING and TIMOTHY ROBERTS, Measurement of Target Displacement with Matching Methods (abstract only), p. 682

ZHOU, JIAN BAI, WALTER H. CARNAHAN, and KI PARK, Variations of Thematic Mapper Line Spread Function in Central Illinois Imagery, p. 801

ZICKWOLF, BOB and LARRY LARSON, The Small Tracts Act, p. 203

ZILKOSKI, DAVID B. and GARY M. YOUNG, New Adjustment of the North American Vertical Datum of 1988 (NAVD 88), p. 152

ZOBRIST, A. L., R. E. WALKER, B. GOKHMAN, and N. A. BRYANT, An Analysis of Landsat Thematic Mapper P-Product Internal Geometry and Conformity to Earth Surface Geometry (abstract only), p. 864 ■